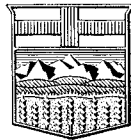


ANNUAL REPORT
OF THE
Department of Lands and Mines
OF THE
PROVINCE OF ALBERTA
FOR THE
Fiscal Year Ended March 31st
1945

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY



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1946

*To the Honourable J. C. Bowen,
Lieutenant Governor of the Province of Alberta.*

SIR:

I have the honour to submit the report of the Department of Lands and Mines for the fiscal year ended March 31st, 1945.

I have the honour to be, Sir,

Your obedient servant,

N. E. TANNER,

Minister of Lands and Mines.

Edmonton, December 15th, 1945.

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GOVERNMENT OF ALBERTA
DEPARTMENT OF LANDS AND MINES

Resulting from the transfer on October 1st, 1930, of Alberta's natural resources from federal to provincial control, the Department of Lands and Mines was on this date brought into being by the Alberta Government. The general purpose of the new Department was to be one of supervision and management of the resources in question.

Ministers of the Department, responsible at different periods for this administration, appear as follows:

Hon. R. G. Reid, appointed October 2nd, 1930,
Hon. Hugh W. Allen, appointed July 10th, 1934,
Hon. Charles C. Ross, appointed September 3rd, 1935,
Hon. N. E. Tanner, appointed January 5th, 1937.

CHIEF OFFICERS
DEPARTMENT OF LANDS AND MINES

March 31st, 1945

Honourable N. E. Tanner	<i>Minister of Lands and Mines</i>
John Harvie	<i>Deputy Minister of Lands and Mines</i>
T. C. Rankine	<i>Departmental Solicitor</i>
V. A. Wood	<i>Director of Lands</i>
M. Gossip	<i>Agent, Calgary Land Agency</i>
R. Cruickshank	<i>Agent, Peace River Land Agency</i>
H. H. Somerville	<i>Assistant Superintendent of Mining Lands</i>
H. Ingrey	<i>Inspector of Mining Rights</i>
T. F. Blefgen	<i>Director of Forestry</i>
E. S. Huestis	<i>Acting Assistant Director of Forestry</i>
F. W. Neilson	<i>Chief Timber Inspector</i>
A. Earnshaw	<i>Radio Superintendent</i>
E. S. Huestis	<i>Fish and Game Commissioner</i>
D. E. Forsland	<i>Superintendent of Game</i>
H. B. Watkins	<i>Superintendent of Fisheries</i>
T. W. Dalkin	<i>Superintendent of the Technical Division</i>
J. L. Crawford	<i>Chief Inspector of Mines</i>
E. R. Edwards	<i>Acting Accountant</i>

SPECIAL AREAS BOARD

Head Office: Hanna, Alberta

M. Baldwin	<i>Chairman</i>
D. M. Graham	<i>Secretary</i>
J. R. McBeath	<i>Member</i>
J. H. Todrick	<i>Supervisor, Edmonton</i>

SPECIAL DISTRICT AGENTS

D. M. Graham	<i>Hanna</i>
A. D. McIntyre	<i>Oyen</i>
D. J. Wilson	<i>Consort</i>
W. J. Chester	<i>Lomond</i>

THE PETROLEUM AND NATURAL GAS CONSERVATION BOARD

Head Office: Calgary

Dr. E. H. Boomer	<i>Chairman</i>
A. G. Bailey	<i>Deputy Chairman</i>
D. P. Goodall	<i>Member</i>

REPORT

OF THE

Department of Lands and Mines

1944-45.

HON. N. E. TANNER,
Minister of Lands and Mines,
Edmonton.

SIR:

I have the honour to submit the fifteenth annual report of the Department of Lands and Mines for the fiscal year ended March 31st, 1945.

As this marks the fifteenth year the Department has been in operation, we have tried to present a picture of the history of the different branches, and you will note from the statements shown that under Provincial administration the natural resources have become increasingly productive and remunerative.

DEPARTMENT'S REVENUE AND PRODUCTION, 1944-45

The surplus on income account of \$2,442,790.39 marks a banner year for the Department, being an increase of \$482,912.74 over last year's surplus.

Increases in revenue are shown by the Lands Branch \$70,177.81, the Mining Lands Branch \$561,704.14, and the School Lands \$116,372.77. Statements are shown in the Accountant's report giving the revenue of the different branches for all the years the Department has been operating. Comparing the year 1944-45 with 1931-32 (the first complete year of operation), the following increases are shown:

- Gross Receipts, 369%.
- Net Receipts, 300%.
- Net Revenue on Income Account, 238%.
- Total Expenditure from Appropriations, 51%.
- Surplus on Income Account, 616%.
- Timber Branch, 384%.
- Mining Lands Branch, 270%.

LANDS ADMINISTRATION

The work of the rehabilitation of veterans from the Armed Forces is being continued in close co-operation with the Superintendent of The Veteran's Land Act, and extensive soil classification is being undertaken in the Peace River District.

The new system in connection with the rental and taxes on grazing lands has been introduced based on the productivity of the grassland and the prevailing price of cattle. By next year we will be able to report how the scheme is functioning and if it is acceptable to the ranching industry as a whole.

Two land agencies are being maintained, one at Calgary and the other at Peace River, and permanent sub-agents operate at Athabaska, Bonnyville, Lac La Biche, Grande Prairie and Hines Creek. In addition, during the year the field inspectors held twenty temporary sub-agencies throughout the Province.

The four field inspectors turned in 943 reports from their inspections, and the collections inspector interviewed approximately 500 lessees and purchasers, being responsible for the collection of approximately \$50,000.00. This personal contact is greatly appreciated by the settlers, and has been very beneficial to the Department.

There were 13 Departmental Grazing Reserves and Community Pastures in operation during the year, with two more in process of formation. This is an increase of two over the previous year.

SCHOOL LANDS

During the year, 362 school lands sales were paid in full, an increase of 138 over last year. This is accounted for by the increased prices for grain and stock. Ten public auction sales were held during the year, and ten private sales were made.

FOREST SERVICE

A continuation in the demand for products of the forest has been shown during the year, although the requirements for military purposes have fallen off considerably. Our native spruce has been in great demand for the crating of food supplies as no taste is transmitted to the foods as is the case with pine and some other species of timber. The lumber required for the building of homes has far exceeded the supply, and the Timber Comptroller found it necessary to place a quota on the amount that could be exported by the different mills.

Owing to the increased traffic on the railway the number of ties required for maintenance and lumber for car doors was much greater than in any previous year. This also increased the quantity of mine props and mine timber as more coal was required by the railways.

Paper Birch (*Betula Papyrifera*) has been used extensively during the last few years in the manufacture of plywood to build and repair aeroplanes as it provides the required strength with minimum weight. A great number of these logs have been shipped from the Slave Lake District to New Westminster, and the cost is excessive. They could have been produced at a much lower cost at a mill close to the standing timber. The manufacturers have, however, agreed to go into the possibility of erecting a plant in Alberta when the war is over.

It has been found by authorities all over the world that the annual loss in the forests caused by insects is greater than that due to fire, and arrangements were made with the Entomological Branch of the Dominion Department of Agriculture for conducting a forest survey in this Province. Certain men in different districts during their patrols make collections from forest trees, and these together with foliage from the tree on which they are found are put in cardboard containers supplied for the purpose and mailed to the Dominion Station at Winnipeg. This survey shows that no serious infestation of forest insects has developed since the Larch (*Larix Americana*) in the northern part of the Province was practically all killed between 1924 and 1927 by the European Larch Sawfly.

More adequate protection against fire is needed in the Province if we are to protect our forests which have demonstrated their value both in the production of lumber and other products and as regulators of stream flow. It is hoped that we will be able to provide more substantial appropriations in the post-war years for this purpose.

LUMBER MANUFACTURED FROM TIMBER CUT ON PROVINCIAL AND
SCHOOL LANDS AND ON FOREST RESERVES

Fiscal Year	F.B.M.
1935-36	89,919,530
1936-37	104,492,420
1937-38	146,301,510
1938-39	122,450,579
1939-40	131,497,021
1940-41	185,752,504
1941-42	272,345,129
1942-43	228,703,425
1943-44	182,407,992
*1944-45	353,625,868
Total	1,817,495,978

*This figure covers the period January 1st, 1944, to March 31st, 1945.

Radio.—All radio equipment stations were in operations shortly after the commencement of the season. A new lookout tower called the Puskwaskau was equipped during the summer with one of the 30 watt Transmitter Receivers combinations previously used at Peace River.

A complete new installation was made during the early part of the year at Peace River. This is a 100 watt Transmitter, and a marked increase in the communication efficiency of the Peace River area has been noted.

Portable units have been distributed to employees of the Department at Embarras Portage, Fort Fitzgerald, Little Red River, Keg River and Upper Hay River. These have helped greatly in administering the work in those districts, especially in connection with fish and game.

FISH AND GAME

Angling conditions during the year under review were very good, and some of the areas containing fishing streams are now producing good creels. Other areas, particularly in the south-west portion of the Province, contain good stocks of fish, which were reduced temporarily by drought conditions during the late summer and early fall of 1944.

The Fisheries Branch has continued its policy of increasing the number of fingerlings and yearling trout produced for introduction in angling streams throughout the Province. It has been found that if these are placed in the streams in the spring they have a better chance of survival than if introduced in the summer or fall. This necessitates the locating of springs large enough for rearing ponds so as to supply, as far as possible, ice free ponds during the winter months.

Efforts have been continued to secure eggs for the hatchery from local sources, and spawning operations are carried on at Kananaskis Lakes and brown trout have been spawned at Gap Lake on the Banff Highway with excellent results. It has been found that eggs produced by our own spawning methods are superior to any we have been able to purchase from outside sources.

In the commercial fishing field, the demand for whitefish and other species has been very strong, and the prices offered so high as to cause considerable concern and temporarily disrupt the proper handling of our products and their distribution to market. These high prices have attracted many people into the business of commercial fishing, and on some lakes the number of licenses issued has caused serious concern, as they are more than the lake can ordinarily stand, and the allotment of fish is taken in a very short time. Were it not that the demand was so great the market would have been glutted. This condition is being overcome to some extent by limiting the time in which commercial fishing can be carried on, but it is not a complete cure, and some means may have to be found to reserve to the legitimate fisherman his trade.

The migratory bird situation continues to improve, and statistics show that the number of ducks, geese and other waterfowl are still on the increase during the summer months. The supply of upland birds, however, does not give as good a picture. Our ruffed grouse, prairie chicken and Hungarian partridge have been depleted, and in the case of the former it has been necessary to put on a closed season, while restricting the hunting of the latter two to limited areas. The pheasant has managed to increase, and the season is being extended each year while the bag limit remains the same.

The big game situation is good despite the number of wolves, which have increased due to the shortage of hunters and lack of ammunition. It will be necessary in the near future to increase the bag limit for elk so as to insure against them becoming a menace to settlers and ranchers. They are now spreading out into a larger territory.

Reports on sheep, goats, deer and caribou are all fairly good. Deer seem to be decreasing in certain areas, possibly due to the spread of the elk population. This may also, in part, be the cause of the shortage of moose in some districts. The decrease, however, is not particularly alarming and will, we hope, recover when the wolf menace is cut down. The antelope in southeastern Alberta continue to increase, and they are in a very healthy condition. The Dominion Government Experimental Station north of Medicine Hat has turned out to be a blessing in disguise, as these animals use it as a game preserve and not as a place to be shunned on account of the experiments being carried on there.

Fur.—The quantity of fur has decreased considerably, and the muskrat population in the northern part of the Province did not justify an open season. The number of foxes have been considerably reduced, and it has been found necessary to allow the taking of beaver only in cases where they are causing destruction. Muskrats have increased in the southern part of the Province, and it is our desire that the farmer should consider this animal as a crop from which he may obtain revenue.

Many small sloughs contained on farms are a potential revenue producer through the introduction of muskrats, and it would be to the farmer's interest to see that the animals are protected and that a yearly crop is taken.

The fur farming industry in the Province has been growing steadily, and more particularly has it advanced in the quality of fur produced for the market. Fur produced on Alberta fur farms is now able to top eastern markets in value, and the fur farmer is to be commended for his efforts in this connection. A number of individuals have become interested in the farming of muskrat and beaver, and it is expected that after some experiments the methods will be improved which will result in an increased crop of these animals from fur farms.

ALBERTA FUR PRODUCTION

Season	Number of Pelts	Valuation
1930-31	941,401	\$1,118,027
1931-32	1,145,888	877,331
1932-33	1,215,094	1,074,884
1933-34	2,270,503	1,533,799
1934-35	1,850,625	1,474,530
1935-36	1,304,966	1,540,077
1936-37	2,068,118	2,170,121
1937-38	1,476,698	1,156,013
1938-39	2,273,826	1,345,130
1939-40	3,977,118	2,514,878
1940-41	2,601,424	2,806,073
1941-42	11,713,686	5,162,635
1942-43	2,468,306	5,067,172
1943-44	1,513,927	4,686,505
1944-45	1,696,140	2,048,063
Totals	38,517,720	\$34,575,238

NOTE: The seasons given in the above table are from July 1st of one year to June 30 of the next.

MINING LANDS ADMINISTRATION

The only available figures on the production and value of Alberta's minerals for the calendar year are as follows:

		Value
Coal, tons	7,427,433	\$26,741,357
Petroleum, barrels	8,788,726	14,468,061
Natural Gas, mcf.	38,533,636	1,926,682*
Salt, tons	25,242	252,420

*Based on well-head valuation of 5c Mcf.

The revenue obtained from fees, rentals, bonuses and royalties during the fiscal year under review amounted to \$1,788,556.21.

In the report of the Mining Lands Division, there is a statement showing the revenue by fiscal years since 1930. There is also a description of the several oil discoveries that have been made since the transfer of the resources to the Province.

Leases dealt with.—Total leases issued from October 1st, 1930 (date of transfer of natural resources), to March 31st, 1945, are shown as follows: Leases active at date of transfer, 19,635; issued, 12,632; reinstated, 154; divided, 644; cancelled, 28,699; renewed, 384; active as at March 31, 1945, 3,982. The area contained in the active leases is 1,804,983 acres.

Coal Royalties.—The table dealing with coal royalties from 1907-08 to the present year is given in the report of the Mining Lands Division.

SALT PRODUCTION

Calendar Year	Tons	Valuation
1938	3,995	\$ 39,950
1939	3,322	33,220
1940	8,524	85,240
1941	16,610	166,100
1942	22,179	221,790
1943	17,408	174,080
1944	25,242	252,420
Totals	97,280	\$972,800
Increase this year in comparison with last	7,834	\$ 78,340

NOTE: The valuation of \$10.00 per ton, which is shown, is based on a well-head price only, and has no relation to a wholesale price of the commodity, which would be considerably higher. Alberta salt development started in 1938. Prior to that year, production was insignificant and no official figures are available.

PETROLEUM AND NATURAL GAS

The Petroleum and Natural Gas Conservation Board are preparing a report covering this year, and all statistics in connection there with will be set out in that report.

TECHNICAL DIVISION

The following comparative statement shows the number of Notifications and acreage covered thereby for the fiscal years from 1930-31 to 1944-45 inclusive:

NOTIFICATIONS ISSUED

Fiscal Year	Number of Notifications	Area, Acres
1930-31	23	3,019,710
1931-32	784	111,424,478
1932-33	1,260	178,887,233
1933-34	1,106	165,224,553
1934-35	2,006	324,611,398
1935-36	2,965	433,529,126
1936-37	2,231	325,615,379
1937-38	2,266	382,382,437
1938-39	2,874	517,435,896
1939-40	2,097	301,431,972
1940-41	2,058	295,649,119
1941-42	1,563	229,566,606
1942-43	1,516	229,699,519
1943-44	1,660	249,371,901
1944-45	1,663	296,393,477
TOTALS	26,072	5,044,242,804
Increase in comparison with last year	3	47,021,576

During the past fifteen years, 2,656,950.39 acres of homesteads have been patented and second homesteads of 718,669.36 acres. School Lands Sales of well over 236,000 acres have been fully paid for and patented.

Exchanges of Land.—Settlers in the Special Areas still continue to avail themselves of the privilege of exchanging their privately owned lands for available Crown lands. Sixteen such exchanges were made during the year, the details of which are given in the report of the Superintendent of the Technical Division. Since the inauguration of this policy, 99 settlers have been accommodated, and are now farming better lands in consolidated blocks.

New Surveys.—When the natural resources were taken over by the Province it was felt that the strictest economy should be exercised in connection with land surveys, and unless the land was of potential agricultural value no surveys were made. Where settlers had been on land for a number of years, exceptions had to be made so that Notification might be issued, and in the report of the Technical Division a summary is shown of these surveys.

Map Publications.—Since 1930 a comprehensive stock of maps have been available to the public in the Technical Division, which comprises all the Dominion publications as well as some from the adjoining provinces of British Columbia and Saskatchewan and other provinces.

Photostat Work.—This service is available to all Departments of the Government, and the machine is in constant operation with many rush jobs which require a good deal of overtime work. Since the machine was installed, 303 rolls of photostat paper have been used, equivalent to a total length of 20 miles.

MINERAL TAXATION

So that the assessment and taxation of all minerals should be placed under one authority, The Mineral Taxation Act of 1945 was passed, which included coal previously assessed and taxed by the Department of Municipal Affairs and municipalities. To obtain a list of all the registered owners of the minerals in the Province is a stupendous task, but a start has been made. A clerk has been appointed to the Land Titles Office in Calgary and one in Edmonton to extract from the records the names of the registered mineral owners with complete details of the minerals. These clerks also compute the arrears of mineral taxes due and issue a receipt for same when paid. This is a service to the public, as no document concerning minerals may be registered in the Land Titles Office unless all mineral taxes are paid.

Many unusual problems have arisen in connection with the administration of this Act, and much valuable information is being obtained.

REGISTRATION DIVISION

An idea of the increasing work accomplished by this Division is shown in the report of the Registrar and the table of Incoming and Outgoing Mail. This, of course, affects the pool from which the stenographers are drawn for the routine work of the Department and the Filing Division.

RECORDAK

In June of 1944 the Recordak equipment and staff were transferred to this Division from the Technical Division, as the photographing of files was logically a function of the Filing Division. This work is now proceeding satisfactorily, and the whole file is being photographed instead of only those portions considered necessary for future reference.

J. HARVIE,
Deputy Minister.

SUMMARY OF OIL PRODUCTION IN ALBERTA BY CALENDAR YEARS
Quantities in Barrels of 35 Imperial Gallons

	1914-21	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	Total
TURNER VALLEY:																									
Limestone:																									
Oil Wells																									
Gas Wells				1,689	169,008	203,725	284,595	410,448	908,411	40,900	63,969	52,409	49,601	61,249	61,302	220,552	1,787,421	5,999,970	7,162,962	8,097,414	9,443,143	9,621,326	8,940,198	7,837,442	59,439,908
Natural Gasoline	76	9,237	8,060	13,128	8,951	7,283	5,854			1,275,202	1,281,341	802,108	717,154	734,891	650,149	451,396	311,549	150,542	88,101	75,602	88,064	74,587	46,465	37,427	8,762,454
Crude Oil recovered from above Limestone	56,599	6,559	1,943	2,932	2,926	2,609	38,808	70,910	73,181	50,897	26,936	21,757	185,781	414,324	496,681	602,360	657,169	531,434	296,787	274,172	293,122	302,216	461,169	448,186	5,015,990
Total	56,675	15,796	10,003	17,749	180,885	213,617	329,257	481,358	981,592	1,366,999	1,372,246	876,274	976,451	1,232,771	1,227,035	1,287,319	2,766,728	6,691,138	7,556,281	8,454,497	9,830,343	10,003,935	9,452,697	8,326,314	73,707,960
ARMELGRA—Heavy Crude																							462		462
CONRAD—Heavy Crude																								24,733	24,733
DEL BONITA—Light Crude												562	546	561	195	1,480		615	2,073	3,444	4,393	1,653	1,882	9,366	26,770
DINA—Heavy Crude																									37,352
KEHO—Light Crude									2,839	1,873	10,362		803	152			1,642	6,383	3,633	4,746	2,894	1,780	200		955
LLOYDMINSTER—Heavy Crude																									11,825
MOOSE DOME—Light Crude																									8,977
PRINCESS—Heavy Crude																	655	3,064	2,074	351	416	477	2,640	6,296	11,825
RAM RIVER—Heavy Crude																			515		19,587	10,478	340	13,815	44,735
RED COULEE—Light Crude																									207
SKIFF—Heavy Crude							529	222	1,328	53,917	65,066	34,315	29,708	20,276	20,536	16,262	13,790	13,818	13,022	12,177	11,626	10,107	8,928	3,835	328,711
TABER—Heavy Crude									1,432	3,731				510	1,564	310									8,298
TILLEY—Heavy Crude																	600	15,098	3,720		5,600	29,819	88,735	148,638	292,210
VERMILION—Heavy Crude																						5,718	9,065	3,137	13,920
WAINWRIGHT—Heavy Crude						5,981	2,526	7,952	12,332	9,739	7,142	7,003	5,276	11,779	14,638	15,057	13,459	12,985	11,624	10,817	22,051	50,819	93,258	234,603	417,750
Total						5,981	3,055	8,174	17,931	69,260	82,570	41,880	36,333	33,278	36,933	33,109	30,146	51,963	37,211	40,710	78,300	132,361	221,851	462,414	1,423,458
ALBERTA TOTALS	56,675	15,796	10,003	17,749	180,885	219,598	332,312	489,532	999,523	1,436,259	1,454,816	918,154	1,012,784	1,266,049	1,263,968	1,320,428	2,796,874	6,743,101	7,593,492	8,495,207	9,908,643	10,130,296	9,674,548	8,788,726	75,131,418
*VALUATIONS	\$ 218,200	\$ 64,047	\$ 41,333	\$ 88,095	\$ 717,271	\$ 914,707	\$1,529,477	\$1,727,824	\$3,424,021	\$4,557,473	\$3,977,788	\$2,606,907	\$2,694,310	\$3,031,446	\$2,856,029	\$2,918,730	\$4,913,960	\$8,639,488	\$9,289,580	\$10,503,249	\$13,809,708	\$15,517,266	\$15,724,518	\$14,468,061	\$124,283,488

NOTE: The dividing line between oil wells and gas wells is now on the basis of the gas/oil ratio of 30 Mcf. per barrel.
*Valuations are based on sales by primary producers.

Provincial and School Lands Administration

REPORT OF THE DIRECTOR OF LANDS, V. A. WOOD

PROVINCIAL LANDS

Historical Review.

The natural resources of the Province have now been under the administration of the Provincial Government for fifteen years, and during that time many changes in the disposition of lands have taken place. The depression came in the 1930's shortly after the transfer and the Government had to keep revising its policy in order to meet the conditions, which of course necessitated many changes in the regulations.

Under the federal administration, homesteads were available to a male who had reached the age of eighteen years or to a widow who could produce evidence that she was the sole head of a family. When The Provincial Lands Act came into force on March 28th, 1931, the right of entry was granted to both male and female of the age of seventeen years or over who had been resident in the Province for a period of three years. This is the first time that the right of homestead entry had been given to a woman who was not the head of a family, and enabled a husband and wife to each take out a quarter section, as well as each member of the family who had reached the minimum age. The time for proving up a homestead was increased from three to five years, thus extending the residence and cultivation requirements for a longer period. In 1935 this was amended and the residence requirements could be performed in either three or five years.

At the time of the transfer of the natural resources, land offices were being operated at Edmonton, Calgary, Lethbridge, Peace River and Grande Prairie, as well as sixteen sub-agencies. Most of these sub-agencies have been discontinued, and in 1933 the Grande Prairie land district was included in the Peace River district, the office closed and a sub-agency established in its place. Some of the land offices in Alberta have been in existence for many years, and Lethbridge was one of the oldest, the incoming settlers flocking to that district where the land required little or no clearing. As a result, there was only a very small amount of unsettled land left, and it was decided in 1941 to amalgamate the Calgary and Lethbridge districts. The Lethbridge office was closed and a sub-agent appointed to carry on the necessary work. Two years later the sub-agent was transferred and the office closed.

After making a very careful review of the situation, it was found that many of the settlers immediately upon taking out homestead entries became burdened with debt, and following the securing of title, liens were registered which added to their troubles. Taxes and other debts accumulated, and it was not long before a great many of them lost their homesteads. Under the system of leasing the lessee only pays when he gets a crop, and as the taxes are included with the rental they are not accumulating when he has no money to pay them. The granting of homestead entries was discontinued in 1939 when The Provincial Lands Act was amended and consolidated and the issuing of agricultural leases was inaugurated. These leases are granted for a period of twenty years, renewable for a further term of twenty years, and include an agreement for the purchase of the land by the lessee after a period of at least ten years at a valuation placed thereon at the granting of the lease. No rent is payable during the three crop years immediately following the granting of the lease, except on land previously cultivated. After that a one-eighth share of the crop or crops grown on the land is the annual rental for the first term of the

lease. If the yield in any year is less than five bushels to the acre the crop share is not collected. The lessee is required to reside on the lease for at least six months in every year, or may for the first five years fulfill the residence duties by residing within three miles of the leased land with a relative, as defined by the regulations. The lessee is also required to erect a habitable house on the land leased within five years from the date thereof.

Cultivation and grazing leases were introduced to enable the farmer who was on land not producing sufficient for his sustenance to lease adjoining lands which from the standpoint of agriculture were satisfactory, thus making him more self-sufficient and an asset to the community at large. The lease term is ten years, and if the land is required for any other purpose a renewal lease would not be granted, the Government taking into consideration its essentiality to the lessee. It would be poor economy to take the land if it would put the lessee out of business. The total area that may be acquired by one lessee is 320 acres. In 1940 a change was made in these regulations providing for new breaking and exempting the lessee from payment of the share of the first crop taken therefrom, provided that such breaking was completed within five years from the date of the issue of the lease. Exemption of the crop share payment was also allowed during the second year where the cost of clearing the land was in excess of five dollars per acre. In any year where the average yield was less than five bushels to the acre, no payment of a crop share was required.

Lands are disposed of for grazing, both by permit and long term lease, and the regulations have been amended from time to time to meet changing conditions. In 1937 the rental and taxes on grazing lands were amalgamated and collections were made by this Department, who then allocated the moneys to the different municipal authorities and government departments. During the depression years rental and tax arrears had accumulated on many of the grazing lands, and in 1936 and 1937 a scheme for consolidation of these arrears was introduced, spreading their payment over a period of years, it being understood that the current year's rental and taxes would be paid when due.

Since the grazing regulations were established much time has been spent by the officials of the Department in trying to work out what might be considered the most fair and equitable basis of rental commensurate with the value of the land as determined by its productivity for grazing. This matter has been studied by a committee of ranchers and representatives of the Department of Lands and Mines, and a survey has been made of the whole ranching industry. On their recommendation a new policy for the collection of grazing rental was adopted based on the productivity of the grassland and the prevailing price of cattle. The equation for estimating the value of the grass in any year is determined by taking the carrying capacity multiplied by the average gain and multiplied by the average price obtained for cattle of all classes on the Calgary stock market, and the Government takes a percentage of this as its rental.

For the benefit of the surrounding settlers the Department in 1934 took an area of 20,500 acres in Township 1, Range 19, West 4th Meridian, which had previously been held under long term grazing lease and set up a community pasture or provincial grazing reserve. This is known as the Twin River Grazing Reserve. Since then two additional reserves have been set up, one at North Cooking Lake, the Blackfoot Reserve, covering an area of approximately 38,000 acres, and the other at Vauxhall covering an area of approximately 165,500 acres. These three reserves are handled directly by the Department with permanent caretakers in charge. While these lands had been held by private lessees the grass coverage had been very badly overgrazed, and control methods were instituted immediately. The result has been very favourable, and the reserves at the present time are capable of carrying more stock than

originally allowed thereon. The settlers using the reserves for summer grazing have been enabled to increase their herds and preserve their home lands for winter grazing. During the past few years this has been a great asset to the farmers raising beef for market purposes and the war effort. In addition to the grazing reserves the Department has issued leases to incorporated grazing associations. Members of the association have the use of the lands contained in the lease for summer grazing. Eleven of these reserves are already organized in the Province, and as the people become aware of the benefits available it is expected that additional areas will be utilized for community pastures through the granting of leases to grazing associations. An area of 342,900 acres is contained in the Departmental Grazing Reserves and Community Pastures.

Annual Report.

Extensive soil classification was being performed in the Peace River District with a view to assisting in the re-establishment and rehabilitation of veterans of the present War and all lands were withdrawn from disposition. By Order in Council of the 20th June, 1944, applications for leases were only accepted where the applicant could prove he had resided in the Peace River District prior to the 1st of January, 1944.

On the 1st of January, 1945, a new system was inaugurated for calculating rental and taxes in connection with grazing rentals and taxes, based on the Short Grass Report published in 1941. Under the new system rental and taxes are calculated on a production basis, taking into account average selling price of cattle on the Calgary Stock Exchange, carrying capacity of the land, and a set increase in weight per head. In order to put this system into effect it was necessary to zone the whole Province according to carrying capacity. The new system has met with some objection, mainly in so far as the carrying capacity is concerned. All such complaints are being investigated by the Grazing Appraiser with a view to having the same adjusted.

Restrictions on marketing wheat were removed by suspension of delivery quotas on May 30th. The quota up to that date was 18 bushels per authorized acre. Much grain, however, could not be delivered on account of the lack of space in the elevators.

The wheat price was again fixed by the Canadian Wheat Board at \$1.25 per bushel, No. 1 Northern, at Fort William and Vancouver.

The Wheat Acreage Reduction Policy which has been in force since 1941 was discontinued in 1944.

Seeding in Alberta was from five to ten days earlier than normal this year. Southern Alberta and Peace River had an abnormal dry season and grains matured early. The percentage of No. 1 Northern Wheat was lower than last year and the percentage of No. 4 Wheat was higher. Sawfly damage was quite extensive. In Southern Alberta the yield was from three to ten bushels to the acre and in Northern Alberta the yield was from twenty-five to thirty-five bushels to the acre.

Applications were not accepted under the Cultivation and Grazing Lease Regulations except in cases where at least one-third of the total area applied for had already been cultivated. This practice was originally introduced in conformity with the federal government's crop curtailment policy, and it was decided to continue until conditions warranted a change.

Land agencies were maintained at Calgary and Peace River, and sub-agencies at Athabasca, Bonnyville, Lac La Biche, Grande Prairie, and Hines Creek.

There was no Soil Survey party in the field this year, as it was impossible to obtain suitable help on account of the War. However, the two permanent Soil

Inspectors made the following inspections in connection with applications for Agricultural Leases:

Requests outstanding 1/4/44	106
Requests called during fiscal year	404
Reports received during fiscal year	368
Requests outstanding 31/3/45	142

The following is a summary of the work performed by the four permanent Land Inspectors:

Requests outstanding 1/4/44	410
Requests called during fiscal year	1,031
Reports received during fiscal year	943
Requests outstanding 31/3/45	498
Temporary Sub-Agencies held by Land Inspectors	20
Items of business transacted	190

During the fiscal year the Collection Inspector interviewed approximately 500 lessees and purchasers, and was responsible for the collection of approximately \$50,000.00 which was instrumental in closing or bringing up to date a number of old outstanding accounts. This personal contact in addition to being beneficial to the Department has also been appreciated by the settlers.

The following statement gives some idea of the transactions of this branch during the fiscal year:

Homestead and soldier grant entries cancelled	542
Applications for patent received	722
Notifications for title issued including homesteads converted to sales	1,106
Applications for title on hand as at 31/3/45	1,371

	No.	Acres
PROVINCIAL LAND SALES:		
Sales in force April 1, 1944	226	14,594.56
New Sales during fiscal year	144	8,970.18
Sales cancelled during fiscal year	6	127.30
Sales patented during fiscal year	149	9,256.94
Sales in force March 31, 1945	215	14,180.50
AGRICULTURAL LEASES:		
Leases in force April 1, 1944	509	90,868.42
Leases issued during fiscal year	312	59,742.34
Leases cancelled during fiscal year	83	14,283.59
Leases in force March 31, 1945	738	136,327.17
ACCRUED AREA LEASES:		
Leases in force April 1, 1944	498	42,529.51
Leases issued during fiscal year	39	3,797.32
Leases cancelled during fiscal year	39	3,853.47
Leases in force March 31, 1945	498	42,473.36
LICENSES OF OCCUPATION:		
Licenses in force April 1, 1944	110	4,179.39
Licenses issued during fiscal year	4	1,057.59
Licenses cancelled during fiscal year	3	72.77
Licenses in force March 31, 1945	111	5,164.21
MISCELLANEOUS LEASES: (Recreational, Irrigation Schemes, Church Sites, Exhibition Sites, Sawmill Sites, Wharf Sites, Fur Ranching, Residential purposes, etc.)		
Leases in force April 1, 1944	122	9,283.78
Leases issued during fiscal year	14	1,188.71
Leases cancelled during fiscal year	9	377.68
Leases in force March 31, 1945	127	10,094.81
TOWNSITE LEASES:		
Leases in force April 1, 1944	15	.....
Leases issued during fiscal year .....	.....	.....
Leases cancelled during fiscal year	7	.....
Leases in force March 31, 1945	8	.....
MINERAL SURFACE LEASES:		
Leases in force April 1, 1944	15	.....
Leases issued during fiscal year	1	.....
Leases cancelled during fiscal year .....	.....	.....
Leases in force March 31, 1945	16	.....
RIGHT OF ENTRY:		
Right of Entry in force April 1, 1944	14	.....
Applications Right of Entry during fiscal year	50	.....
Right of Entry cancelled	26	.....
Right of Entry in force March 31, 1945	38	.....
FUR FARM LEASES:		
Leases in force April 1, 1944	10	.....
Leases issued during fiscal year	1	.....
Leases cancelled during fiscal year	1	.....
Leases in force March 31, 1945	10	.....

	No.	Acres
CULTIVATION AND GRAZING LEASES—6 and 10 year Leases:		
Leases in force April 1, 1944	276	50,409.62
Leases issued during fiscal year	14	2,533.90
Leases cancelled during fiscal year	46	8,014.18
Leases in force March 31, 1945	244	44,929.34
CULTIVATION AND GRAZING LEASES—Renewal Leases:		
Leases in force April 1, 1944	150	26,074.82
Leases issued during fiscal year	7	1,764.00
Leases cancelled during fiscal year	1	39.80
Leases in force March 31, 1945	156	27,799.02
CULTIVATION AND GRAZING LEASES:		
21 year Leases:		
Leases in force April 1, 1944	7	2,070.93
Leases issued during fiscal year		
Leases cancelled during fiscal year		
Leases in force March 31, 1945	7	2,070.93
Special Areas—6 years:		
Leases in force April 1, 1944	186	53,254.82
Leases issued during fiscal year	286	69,189.21
Leases cancelled during fiscal year	7	1,437.37
Leases in force March 31, 1945	365	121,006.66
Special Areas—20 years:		
Leases in force April 1, 1944	137	36,712.31
Leases issued during fiscal year	51	15,052.19
Leases cancelled during fiscal year	5	1,199.82
Leases in force March 31, 1945	183	50,564.68
6 Year (S.E. of Province):		
Leases in force April 1, 1944	67	14,012.09
Leases issued during fiscal year	15	3,027.63
Leases cancelled during fiscal year	4	639.00
Leases in force March 31, 1945	78	16,400.72
GRAZING PERMITS:		
Grazing Permits issued	1,976	472,459.93
Cultivation Permits issued	138	2,085.91
Grazing Leases:		
Leases in force April 1, 1944:		
Provincial Leases	1,796	2,530,340.00
Special Area Leases	831	1,320,073.00
Total	2,627	3,850,413.00
Leases issued	353	684,688.00
Area added to existing leases		73,909.00
Transfer from Special Areas	3	463.00
Leases reinstated	2	3,288.00
Adjustments to leases	10	50,530.00
Leases cancelled	204	519,755.00
Area withdrawn from existing leases		75,400.00
Adjustment from leases	9	33,386.00
Leases transferred	8	1,210.00
Areas transferred		4,645.00
Leases in force March 31st, 1945:		
Provincial Leases	1,844	2,517,679.00
Special Area Leases	930	1,511,216.00
Total	2,774	4,028,895.00

A small area of school land is contained in the above figure. School lands may be included in a grazing lease provided such school lands have not less than two sides adjoining the tract or block of Provincial Land to be leased.

During the fiscal year certain lands lying to the right of the right bank of the Little Bow River, were removed from the Special Area and placed under the control of the Director of Lands. This necessitated transfer of some leases and areas and adjustment of Departmental records.

There were 13 Departmental Grazing Reserves and Community Pastures in operation during the fiscal year, with two Community Pastures in process of formation.

The following is a summary of the Grazing Reserves and Community Pastures:

Departmental Reserves (Permanent Caretakers).

Vauxhall Provincial Grazing Reserve: Area, 165,500 acres. Twenty-seven miles of fencing on Reserve. Additional help was employed during the year for range riding, building and repairing fences, excavating wells, and building wind-

mills for water supply. Permits issued for summer grazing 117, covering 1,797 cattle, 388 horses, 13,166 sheep. Permits issued for winter grazing 3, covering 13 horses and 5,400 sheep.

Blackfoot Provincial Grazing Reserve: Area 38,000 acres. Fifty miles of fencing on Reserve. Additional help was employed for range riding, building and repairing fences. Permits issued 87, covering 1,207 cattle and 151 horses. This Reserve was not used to capacity.

Twin River Provincial Grazing Reserve: Area 20,500 acres. Twenty-four miles of fencing. Permits issued 37, covering 929 cattle, 24 horses.

Reserves Handled by Association

(who are responsible for upkeep and for care of the stock).

Tulliby Lake Provincial Grazing Reserve: 22,000 acres. 1 permit issued, covering 300 cattle.

Bowell West Provincial Grazing Reserve: 8,600 acres. 1 permit issued, covering 128 cattle.

Redcliff North Provincial Grazing Reserve: 6,700 acres. 1 permit issued, covering 168 cattle and 54 horses.

Many Islands Provincial Grazing Reserve: 16,000 acres. 1 permit issued, covering 531 cattle. On account of extremely dry season, Association required to remove 281 head.

GRAZING RESERVES UNDER LONG TERM LEASES BY ASSOCIATION

Castle River Reserve	4,500 acres
Fir Grove Reserve	3,600 "
Ross Lake Reserve	4,500 "
Barnwell Reserve	5,400 "
Eureka Reserve	3,400 "
Pipeline Reserve	19,400 "
Hay Permits issued	1,216
Tons of Hay cut	9,088
Hay Seizures (covering 61 tons of hay)	4
Miscellaneous Squatters Permits issued	288

Total revenue received for the fiscal year in connection with the administration of Provincial Lands, exclusive of Provincial Lands in the Special Areas, amounted to \$220,599.44. Details pertaining to this revenue are given in the report of the Accounting Division of this Department.

SCHOOL LANDS

During the fiscal year, 362 School Land Sales were paid in full, which is an increase of 138 over last year. This is accounted for by the increased prices for grain and stock.

There were ten public auction sales held during the fiscal year. Twenty-one new sales were opened at a price of \$29,667.38. Ten private sales were made, including town lots, at a price of \$1,690.00.

Administration of sand, stone and gravel on school lands was transferred to the Mining Lands Division.

The total revenue from School Land Sales amounted to \$463,252.47, derived as follows: \$349,104.99 principal, \$114,147.48 interest. This is an increase of \$28,828.79 over last year.

SCHOOL LANDS SALES:	No.
Sales active March 31st, 1944	1,625
Sales issued during fiscal year	31
Sales cancelled during fiscal year	22
Sales patented during fiscal year	362
Sales in force as at March 31st, 1945	1,272
Assignments School Land Sales registered	77

	No.	Acres
6 AND 10-YEAR CULTIVATION LEASES:		
Leases in force April 1, 1944	1,600	298,788.60
Leases issued during fiscal year	58	10,684.89
Leases cancelled during fiscal year	68	12,905.29
Leases in force March 31, 1945	1,590	296,568.20
6-YEAR CULTIVATION AND GRAZING LEASES: Special Areas:		
Leases in force April 1, 1944	49	13,841.94
Leases issued during fiscal year	23	4,605.74
Leases cancelled during fiscal year		
Leases in force March 31, 1945	72	18,447.68
NEW 6-YEAR (S.E. of Province):		
Leases in force April 1, 1944	1	160
Leases issued during fiscal year		
Leases cancelled during fiscal year		
Leases in force March 31, 1945	1	160
MISCELLANEOUS AND SPECIAL LEASES:		
Leases in force April 1, 1944	48	1,130.90
Leases issued during fiscal year	15	1,136.77
Leases cancelled during fiscal year	2	57.90
Leases in force March 31, 1945	61	2,209.77
LICENSES OF OCCUPATION:		
Licenses in force April 1, 1944	38	398.49
Licenses issued during fiscal year	7	91.50
Licenses cancelled during fiscal year		
Licenses in force March 31, 1945	45	489.99
GRAZING PERMITS:		
Number of School Lands Grazing Permits issued	2,233	550,637.21
Number of School Lands Cultivation Permits issued	29	595.5
HAY PERMITS:		
Number of School Lands Hay Permits issued	215	
Number of tons of hay cut	1,847	
Number of hay seizures		

Total revenue received on School Lands exclusive of School Lands in Special Areas for the fiscal year is as follows:

Interest, Rentals, Royalties, etc.	\$420,062.24
Principal	349,104.99
	<u>\$769,167.23</u>

Registration Division

REPORT OF THE REGISTRAR, C. B. KENWAY

As the annual report for this year is more or less a review of the work of the Department since its inception, the report from the Registration Division will have to be confined to a review of the work since the formation of the Division, just two years ago.

On May 10, 1943, the writer was appointed as Registrar, and the Division formally separated from the Lands Branch. The Division had been formed some time previously by bringing together from the various branches staff, equipment, files and records that had a functional similarity, and for lack of a suitable head the Division had been temporarily attached to the Lands Branch. Thus the writer found himself with a Division having many different systems, varied habits and a motley array of equipment that had been retained from the branches from which they had been drawn. Further, a great amount of work was behind schedule, and many records were not up-to-date. In addition, the Division was inadequately housed. To give just one example, in the filing section fifteen people were trying to work around four desks, aisles between filing cabinets ran in all directions, and files were spread on tops of cabinets because of insufficient room inside. The first step was to plan adequate working space; and to reduce, standardize and co-ordinate the various systems.

To-day, the staff can look back with a great deal of satisfaction on their improvements and accomplishments. With more equipment, logically and orderly arranged, more working space, and with the installation of fluorescent lighting, working conditions have been immeasurably improved. Records have been brought more up-to-date, more information is being recorded and newer systems evolved, all of which provide a quicker and faster service. However, there is much to be desired that will require the constant and continued application of the staff to effect further improvements to meet the steadily growing amount of work.

Some idea of the increasing volume of work being done by the Division, and the Department as a whole, can be grasped by an analysis of the incoming and outgoing mail. This is readily shown by comparing the figures for the past two years, since the inception of the Division, with the previous two years. The actual figures given below are graphically illustrated by the cumulative curves shown in Figure 1.

1941-42			
Month	Letters Received	Letters Mailed	Total
April	13,797	16,214	30,011
May	13,308	17,941	31,249
June	11,290	20,698	31,988
July	10,805	15,608	26,413
August	11,029	16,641	27,670
September	11,637	17,371	29,008
October	9,658	35,174	44,832
November	11,258	16,093	27,351
December	13,059	16,605	29,664
January	12,926	20,830	33,756
February	11,924	14,591	26,515
March	12,375	17,548	29,923
Total	143,066	225,314	368,380
Monthly Average	11,922	18,776	30,698

1942-43			
Month	Letters Received	Letters Mailed	Total
April	15,793	13,467	29,260
May	11,913	12,632	24,545
June	10,282	13,324	23,606
July	11,039	11,391	22,430
August	11,994	32,503	44,497
September	11,385	13,114	24,499
October	10,780	31,963	42,743
November	12,175	11,852	24,027
December	11,467	14,239	25,706
January	10,067	13,700	23,767
February	10,783	13,421	24,204
March	15,510	13,916	29,426
Total	143,188	195,522	338,710
Monthly Average	11,932	16,294	28,226
1943-44			
April	12,371	11,783	24,154
May	11,425	12,104	23,529
June	11,974	23,979	35,953
July	15,420	41,022	56,442
August	12,021	39,154	51,175
September	13,787	23,478	37,265
October	13,013	15,031	28,044
November	15,455	19,195	34,650
December	13,309	18,508	31,817
January	15,851	19,651	35,502
February	17,840	20,077	37,917
March	16,912	23,528	40,440
Total	169,378	267,510	436,888
Monthly Average	14,116	22,292	36,408
1944-45			
April	14,095	13,324	27,419
May	16,943	18,094	35,037
June	17,134	15,454	32,588
July	12,797	51,009	63,806
August	12,579	46,511	59,090
September	13,158	21,961	35,119
October	13,656	17,362	31,018
November	11,807	21,184	32,991
December	13,512	21,091	34,603
January	12,764	27,754	40,518
February	11,595	27,016	38,611
March	24,954	30,652	55,606
Total	174,994	311,412	486,406
Monthly Average	14,582	25,951	40,533
% Increase:			
1943-45 over 1941-43	20.3	37.6	30.6
% Increase:			
1944-45 over 1942-43	22.2	59.3	43.6

Figure 2 depicts the total amount of incoming and outgoing mail for each of the fiscal years from 1933 to 1944 inclusive, and indicates roughly the growth of the Department's business over this period.

It must be realized that in recording the above figures it represents the total mail received in the Department by the Registration Division, a large proportion of which is ultimately handled through the stenographic pool, filing and record sections. Any increase or decrease in either incoming or outgoing mail is immediately reflected in all three sections of this division.

It is interesting to note that the incoming mail for the past two years averaged 14,349 pieces per month, against 11,927 for the previous two years. In other words, for the past two years incoming mail has been heavier by 2,422 pieces per month, or an increase of 20.3 per cent. How much of this is a legitimate increase in business is hard to determine, because there has been a determined effort on the part of nearly everyone to "catch-up" on back work, as shown by the outgoing mail. The more mail there is going out, the more there will be coming in, and as soon as the back-log of work is up to date, then both figures will settle down to normal. After this point is reached, any increase or decrease will represent normal business.

The most gratifying part of this analysis is reflected in the figures for the outgoing mail. For the past two years outgoing mail has averaged 24,122 pieces per month, against 17,535 for the previous two years. The difference of 6,587 represents an increase of 37.6 per cent. When one compares the past year with 1942-43, a year in which work went badly behind because of staff changes, etc., the increase amounts to 57.3 per cent.

Right at this point I want to express my sincere appreciation of the efforts many of the staff have put into their work. For some it has meant many extra hours of work, and for others a greater application during office hours. Above all, there is a better feeling of co-operation which goes a long way in furthering the work of both the Division and the Department.

To give one example, the stenographers did their share during the past year by putting in 8,776 stenographer-days, against 8,830 for 1943-44 and 9,024 for 1942-43, in view of the fact that the past year has been the heaviest recorded to date. In this connection, one of the reasons why the stenographers were able to turn out more work in less stenographer-days hinged partly on the fact that by changing the system in the filing section the stenographers and their correspondent clerks were relieved of certain file work that was rightfully the responsibility of the filing section. Some clerks and stenographers have estimated that they have spent on the average of one-half hour or more per day on file work.

RECORDS

In common with other sections of the Division, the Records Section has again handled a greater volume of work than formerly. As mentioned last year, it is difficult to record statistically the volume of work done, as its nature does not readily lend itself to this type of reporting without entailing an unnecessary amount of extra and needless work. However, a perusal of the Land, Timber and Technical Branches will give some idea of the standings furnished and the entries made. For nearly every item involving either the reserving, granting, cancellation or assignment of leases, sales, permits, homesteads, soldier grants, berths, sites and roadways, etc., this Division has supplied standings on every quarter involved, and at a later date made appropriate entries in the registers. When it is realized that the entry in the registers of one ranch lease may involve thousands of acres, the size of the task can be appreciated.

The reservations of land for the St. Mary's-Milk River irrigation project entailed considerable labour in entries, covering files, and the preparation of a map. The entries for this project are being kept up-to-date with each parcel of land acquired through tax recovery, revestment or cancellation of leases, etc.

FILING

In August of 1944 more space was provided for the housing of the Filing Section, and many favourable remarks have been received on the utilization of the space by the grouping and arrangement of the equipment. In order to provide freer working space on those desks handling large quantities of mail and files, specially-designed shelves were attached to these desks. Also, file carts were designed small enough to push along narrow aisles and yet carry sufficient files. Both of these pieces of equipment are now being adopted by other Departments of the Government.

New index cards were prepared for the Kardex system, and as they provide much more information than the old-type cards, are a decided asset, not only to ourselves, but to others in the Department. The old cards are being changed over as rapidly as time permits.

A system of daily search lists has been instituted that has accelerated the attaching and distribution of mail. This has overcome many of the former difficulties, and if properly adhered to should provide a very satisfactory service.

In regard to the distribution of files, the number of "pick-ups" and deliveries has been increased, but these are to be "stepped up" further in order to reach the effect desired.

Two new sets of alphabetical files have been established, and these have done much to eliminate the handling of loose correspondence throughout the office.

There was a marked increase in the number of new files opened. The largest increases occurred in the new Timber alphabetical and Mining Lands files. A comparison of the new files made for the past two years, together with the total number of files made to date, are given in the following table:

Kind of File	NUMBER OF FILES OPENED		
	1943-44	1944-45	Total
General Lands	2,058	2,201	100,428
Lands, Alphabetical .....	.....	259	259
Grazing Lands	456	611	9,197
School Lands	264	214	12,221
Right of Entry	39	21	60
Timber Lands	841	683	8,100
Timber, Alphabetical .....	.....	1,274	1,274
Mining Lands	886	1,552	37,011
Mining Lands, School	12	7	3,183
Mining Lands, License	15	14	55
Mining Lands, Company	13	19	977
Mining Lands, General .....	.....	14	437
	<u>4,584</u>	<u>6,869</u>	<u>173,202</u>

RECORDAK

In June of 1944, the Recordak equipment and staff were transferred from the Technical to the Registration Division. One of the reasons for the transfer was that the photographing of files was logically a function of the Filing Section. At the same time the Registrar was appointed an Officer for the Department of Lands and Mines for the destruction of files.

The system of photographing files was changed from one of photographing only certain portions of the file to one of photographing the complete file. By the latter method no decision was required as to what material on a file should or should not be photographed. Further, that if a court case arose in later years there would be no question as to why certain correspondence had not been photographed. Thus, by this change one person was released for other work.

Previous film work was scrapped, and as the files had not been destroyed, an arduous task followed in rebuilding the files from various bundles and rearranging the material within a file in chronological order. Because of war-time conditions another Recordak machine was not available, and it became necessary to employ two shifts on the one machine. By so doing, the machine was in constant use from 8 a.m. to 8 p.m. The overlap in shifts allowed suitable time for checking, sorting and filing, etc.

By the end of March, 1945, 275 one-hundred-foot films had been photographed, and about two or three tons of files are now ready for destruction.

SPECIAL PROJECTS

When the Mobilization Section of National Selective Service asked employers to make a systematic "check-up" of men within the military age groups, the Registrar was assigned the task of examining the documents of men throughout the Department falling within these age groups. The time required for making returns was limited, which entailed much overtime work.

The writer wishes here to thank the Forestry Radio Service for their invaluable assistance in expediting the work by sending instructions to men in outlying districts, in regard to the documents required in each individual case. The inspection is continuing with the employment of new men.

Very favourable comments were received from the Regional Director of Mobilization as to the thoroughness and rapidity with which the information was collected.

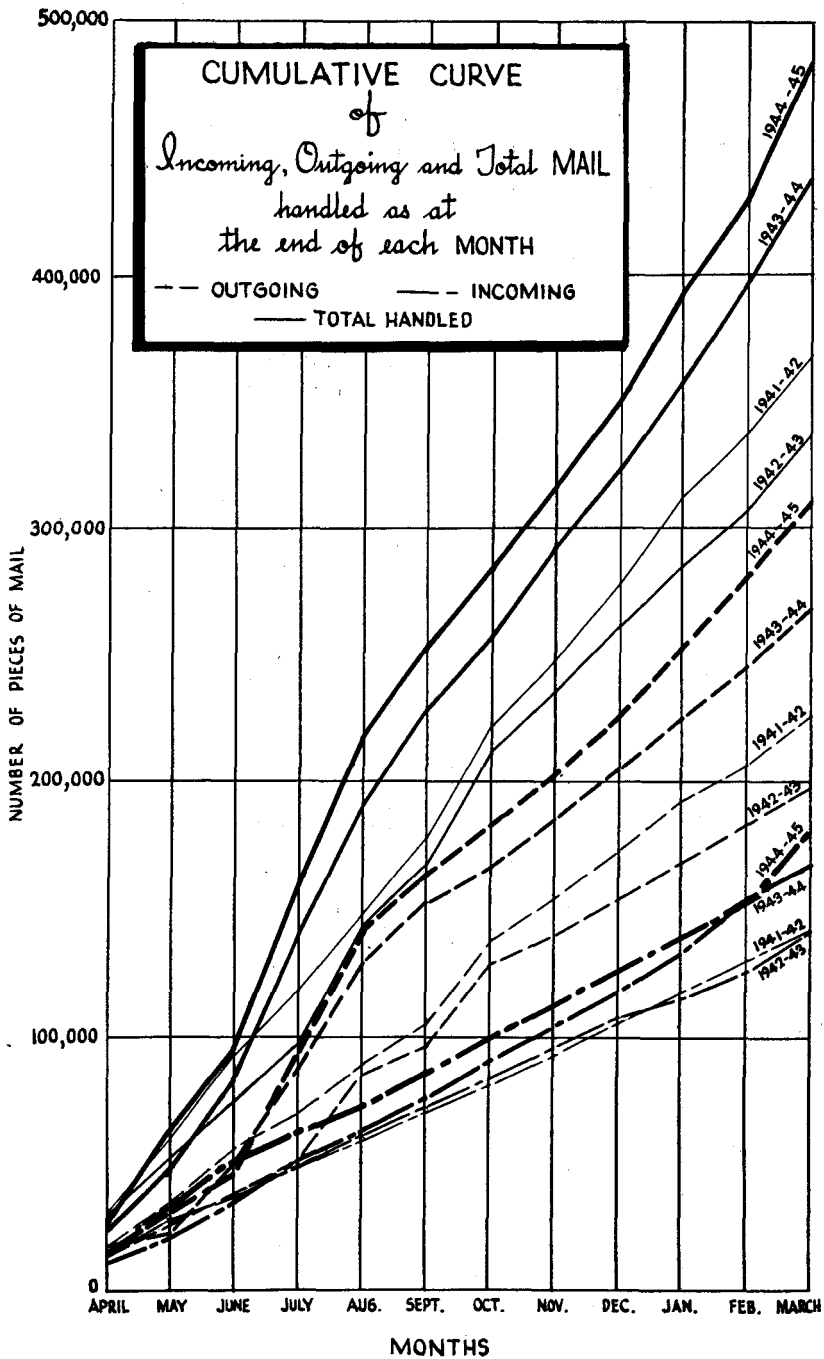
As Secretary of the Departmental Committee of Branch Heads, a fair amount of time has been spent in matters arising from committee meetings. To cite one example, a great deal of time was spent in assisting in the preparation of legislative material, such as the Mineral Taxation, Provincial Lands and the Coal Mines Regulation Acts, etc.

Following this, the Deputy Minister, at the request of the Chief Inspector of Mines, assigned the task to the Registrar of compiling, preparing and writing Section E of the Province's brief to the Royal Coal Commission. The complimentary remarks received on this section of the brief have more than compensated for the hours of extra work involved.

Material was prepared also for the Quebec conference of the Inter-Provincial Mining Committees to be held in April, 1945.

In the preparation of the above material there were two things that seemed self-evident, and if a digression is permitted, is that there seems to be a definite need within the Department for a statistical branch and a library. With proper statistical equipment and staff, information now recorded throughout the Department would be readily available, without disrupting the work of the various branches. The library could house not only reference material pertaining to the various fields of the Department, but house reports, treatises, etc., that have been prepared by various branches. These could be catalogued for ready reference when desired.

In summing up, the staff and myself can look back over the past two years with much satisfaction. What has been done in the past will now only act as a spur to what can be accomplished in the future.



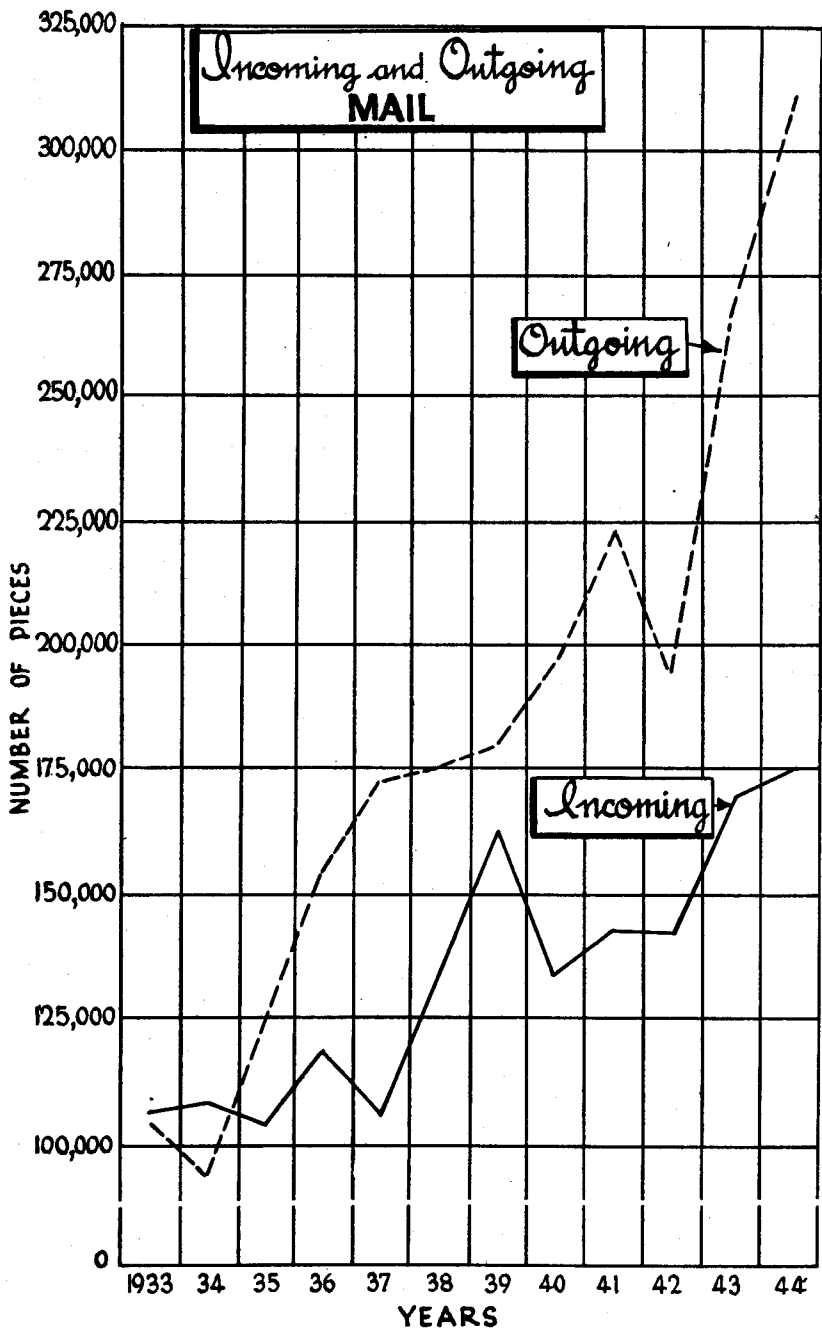


Figure 2

Forestry

REPORT OF THE DIRECTOR OF FORESTRY, T. F. BLEFGEN

The year under review being the 15th anniversary of the transfer of the Natural Resources from Dominion to Provincial control, it has been suggested that a summary be given of the work done since the transfer.

This phase of the work is shown in charts and tables in this report, and a perusal of these statistics will disclose that a tremendous expansion has been made in the administration of this division.

The usual measure is in the form of dollars and cents, and the expansion is illustrated very well by the revenue taken in by the Department as a whole and the Forestry Division as a unit.

In spite of the growth and the additional duties thrust upon this division, the increase in staff has been very small, which has meant that some activities of our work have been more or less neglected. I refer especially to field inspections, which are very essential and should not be neglected. However, the increase of work and the shortage of assistance have left insufficient time to make the required inspections.

It is anticipated that when hostilities cease and some of the personnel now on leave for military service return, these periodic inspections of conditions in the field can again be resumed.

The year under review shows a continuation of the demand for products of the forest, although the requirements for military purposes have fallen off to a very great extent. However, great quantities of lumber were required for use in crating implements of war and food supplies, our native Spruce being in great demand, especially for meats, butter and other foods, as no taste is transmitted to the foods packed as in the case with Pine and some other species of timber.

As a result of the demand, the Dominion Timber Controller gave special priority to the different box factories in the Province which were manufacturing food and other containers for overseas shipment.

A great demand for lumber for the building of homes was also experienced, with the result that the falling off of the demand for military encampments and other purposes did not bring about the anticipated fall-down in the lumber market, the reverse being the case. The demand has far exceeded the supply, with the result that a quota was placed by the Timber Controller on the amount that could be exported by the different mills.

The winter of 1943-44 was exceptionally mild throughout the greater part of the Province with an unusually light fall of snow. This condition, together with the acute shortage of labour that continues to be experienced in the lumber woods, not only in this Province but throughout the whole of the Dominion, resulted in the inability of a number of large operators to take out the timber they had anticipated cutting and manufacturing.

A great number of timber berths and special timber permits were awarded to small operators who, with the assistance of some of the members of their own immediate families and that of some of their neighbours, were able to keep the operation going, and in this way brought up the total production for the Province.

The labour shortage of previous wartime years showed some betterment by reason of the allotment of greater numbers of prisoners of war and Japanese nationals. Although this class of labour is not nearly as efficient as the Canadian woodsman, they assisted greatly in alleviating the labour shortage.

The two railway systems of the Dominion were called upon to utilize all available equipment in order to meet the demand for transportation of war supplies, equipment and personnel, and although the traffic on the Northern Alberta Railway was not as heavy as during the construction of the Alaska Highway, the Canol Pipeline and ancillary work in preparation for defence of the North-West coast of the continent, traffic was far above normal.

The result of this increased traffic was that the forests were again called upon to make very valuable contributions by supplying large numbers of ties for the maintenance of way and for lumber car doors.

The increased demands made on the transportation systems were reflected in an increase in the coal industry resulting in larger requirements of mine props and timber. Although the bonus for the cutting of props was discontinued by the Dominion Government, the demand for suitable timber was very heavy.

A great portion of the timber required by the mine operators, especially those of the Drumheller area was taken care of from timber cut on the Dominion Forestry Experimental Station at Kananaskis where a prisoner of war camp was located. The use of prisoners of war in this camp in the production of mine props, which were urgently required, also helped to relieve the labour shortage as men ordinarily employed in the production of mine props and timber were available for the production of lumber, ties and other forest products.

A great deal of paper birch (*Betula Papyrifera*) was shipped from the Slave Lake district of the Northern Alberta Forest District to New Westminster, British Columbia, where it was manufactured into plywood for the manufacture and repair of airplanes, being used principally in connection with the famous Mosquito, the all-wood plane.

This material has been in very great demand for several years, but previous mention has not been made of it in view of the war use which was being made of the product. The material provides the required strength with the minimum weight. The shipment of logs in the round, however, is expensive, and the specifications called for almost perfect logs without blemish other than in the heart, where some defects were permissible and, no doubt, the material could have been produced at a much lower cost at a mill or mills closer to the standing timber.

The manufacturers of this plywood or veneer have, however, promised to make a study of the erection of a plant in this Province once the war is over and hostilities are ended, when utilization of Poplar for veneer or plywood will also be given consideration.

An Order in Council was passed granting permission to ship pulpwood for the manufacture of paper, this permission being required as the regulations are to the effect that all forest products must be manufactured within the Province. However, the proposed trial shipments were not made, principally on account of the applicant's inability to secure the necessary labour to carry out the cutting and hauling to the railways, but partially on account of the lateness in obtaining the necessary authority.

Competent authorities on forests throughout the world are now of the opinion that the annual loss caused by forest insects is greater in the aggregate than the loss due to forest fires. In order to minimize the loss by this cause, arrangements were entered into some years ago with the Dominion Government, Department of Agriculture, Entomological Branch, in conducting a forest insect survey in this Province.

We are pleased to report that the splendid co-operation we have had in the past has continued in this phase of our work. The arrangement we have been

working under is that certain men in different parts of the Province are appointed to make collections from forest trees during the course of their patrols, the results of which, together with foliage from the trees on which they were found, are put in cardboard containers supplied for the purpose. The container is then sent by mail to the Dominion Station at Winnipeg where the contents are identified and the necessary identification and tabulations are recorded, giving the number, name, etc., of the different insects contained in each shipment. This list is then sent to the collector with a copy to the Edmonton Forestry Office.

We are pleased to report that the survey of the forests of this Province shows that no serious infestation of forest insects has developed since the Larch (*Larix Americana*) in the northern part of the Province was practically all killed between 1924 and 1927 by the European Larch sawfly.

The forests of this Province have amply demonstrated their value, especially during the war years, in the production of valued products and in their continuance as regulators of stream flow, but if more adequate protection against fire is not afforded, these benefits will not continue indefinitely. It is, therefore, sincerely hoped that after the successful conclusion of hostilities more substantial appropriations will be provided.

It is with deep regret that the untimely death of Forest Ranger D. B. Harrington, a member of the personnel of the Northern Alberta Forest District, must be recorded.

Mr. Harrington passed away as a result of a paralytic stroke. He had been a valued member of the staff for a number of years, and his passing is regretted by all his friends and fellow workers.

FOREST PROTECTION

The fire hazard in the Peace River and Grande Prairie Divisions became very acute during the early part of the summer as a result of high winds. Small fires were soon fanned into large ones and as a result of these conditions with extreme shortage of help all fires were difficult to control. Progress was made, however, by the use of mechanical equipment such as bulldozers, tractors, and plows. Without these the situation would have been well nigh hopeless.

In the Crowsnest Forest a very serious hazard developed during the month of August, and during the latter part of this month the forest was closed to all non-essential travel. This hazardous condition continued with only slight relief in the form of light rain on the 31st of August, until the latter part of November.

The long hazardous period interfered greatly with the improvement progress as the personnel were either fighting fire or confining their activities to points where they could readily receive notification of the start of fires.

Splendid co-operation was received from the Royal Canadian Air Force and the United States Army Air Force. Both of these forces gave every assistance possible when requests were made as well as reporting fires seen from the air in remote areas during their numerous flights.

Co-operation that left very little to be desired was also received from the different timber operators who own bulldozers and other mechanical equipment.

A continuation of the splendid co-operation we have enjoyed in past years was received from the press and different radio stations throughout the Province. Acknowledgment of this much appreciated assistance has already been given, but I wish to take this opportunity of again thanking the press and the radio stations throughout the Province and of assuring them that their assistance is greatly appreciated by the personnel of the Alberta Forest Service.

I am pleased to report that the requests for closer supervision of the army and air force personnel travelling by plane have met with a great deal of success as the fires that could be attributed to the throwing or dropping of cigar or cigarette butts from a plane have decreased greatly.

Fire Season:

The season under review could be considered a normal season with the exception of the Clearwater Forest of the Rocky Mountain Forest Reserve where conditions were well below normal. In the Crowsnest Forest a long continued dry spell following a winter of light snow brought on a fire hazard that was dangerously high, culminating in the closing of the forest to non-essential travel from the latter part of August to the end of the fire season.

In the northern part of the Province the forests went into the winter of 1943-44 with considerably less than average surface moisture as a result of a dry fall. This condition was not improved from a fire protection standpoint by an unusually light snowfall during the winter months. The above combination brought about ideal conditions for settlers to clear land, and full advantage was taken. In most cases, these clearing fires were guarded and extinguished, but some were allowed to smoulder until the surrounding areas were well dried out, and when high winds occurred these smouldering spots were fanned into large fires which spread over quite extensive areas, especially in that portion of the Peace River Division north of the Peace River where settlement has been allowed to encroach on timbered lands.

During the winter of 1943-44 the weather was especially mild with much less than average snowfall throughout the forest areas of the Province with the exception of the Clearwater Forest, where the total fall was slightly above average. However, numerous chinooks and warm spells occurred during the winter months resulting in a heavy run-off while the ground was frozen.

ROCKY MOUNTAIN FOREST RESERVE

Crowsnest Forest:

In the Crowsnest Forest of the Rocky Mountain Forest Reserve, the early spring following light snowfall during the previous winter and the lack of the usual spring rains brought on a high fire hazard which continued dangerous throughout the spring and early summer, becoming extremely dangerous during the latter half of August, when it became necessary to close this forest to all non-essential travel.

Bow River Forest:

In the Bow River Forest, the early spring was unusually dry and a serious fire hazard developed during the month of May. A number of fires occurred late in this month. However, precipitation occurred that alleviated the dry conditions and only a normal or slightly below normal hazard existed until the middle of August.

During the late summer and fall the weather became very dry, and the fire hazard increased until it was finally terminated for the season in late November.

CLEARWATER FOREST

Although the snow disappeared early in April, unusually heavy falls of rain at sufficiently close intervals between April and September held the fire hazard to normal, and although very little precipitation occurred in September and October the previous heavy rainfall and lack of freezing weather kept the hazard below normal. This condition, together with a light fall of snow in the middle of November helped to keep the hazard low until the end of the season, which was brought about by a heavy fall of snow on November 23rd.

BRAZEAU FOREST

The winter of 1943-44 was quite mild with an average snowfall and the spring run-off was early. The spring fire hazard started early in April with warm drying winds, and the highest hazard occurred between the middle of April and the first ten days in May. On the 10th of May a heavy snowfall occurred reducing the fire hazard to below normal. During the spring, snow fell at intervals with rain in the valley. This condition continued until the end of May. During June and July a great deal of moisture fell in the form of rain, causing severe floods and wash-outs. This condition continued for the greater part of the summer, although not as heavy in late summer and early fall.

The hazard again mounted during the latter part of September and early October, finally terminating with a fall of snow about the 10th of November.

ATHABASKA FOREST

The winter of 1943-44 was mild with slightly less than the average snowfall. The spring fire hazard started about the 10th of April and became quite dangerous toward the latter part of the month with high winds and bright, sunny weather. The hazard in this forest was reduced to below normal by a heavy fall of snow on May 10th. During the summer season the hazard was reduced by the green growth of vegetation and occasional showers that kept the hazard below normal until well into the fall. During the fall period the hazard was normal to slightly above. The wet weather that preceded, however, held the hazard from becoming dangerous until it was finally terminated on November 10th by the first snowfall of the winter season.

NORTHERN ALBERTA FOREST DISTRICT

Breton Division:

The snowfall during the preceding winter was light with mild temperatures which prevented the accumulation of snow to any extent. An early spring brought on a fire hazard during the first week in April which continued to rise during the balance of the month and during the first two weeks in May. Heavy rains occurred during the latter part of May and at intervals throughout the summer and early fall, although the late fall was dry with some high winds in October. The previous heavy rains held the hazard down until the end of the fire season.

Carrot Creek Division:

The winter of 1943-44 was unusually mild and the snowfall was light. The spring break-up occurred on April 10th and the fire hazard started to mount, becoming quite high during the latter part of the month, and reached an extremely dangerous point during the first ten days in May. Fortunately, a heavy snowfall occurred on the 10th of May, which relieved the situation.

Light showers and two exceptionally heavy rains during the summer and fall held the fire hazard at normal or below normal until the end of the season on November 10th, when the first snow of the winter occurred.

Westlock Division:

Due to the light snowfall during the previous winter, the fire season started earlier than usual, but was of short duration as a fall of snow occurred during the fore part of April, which was followed at intervals throughout the spring by rain. These periodic showers occurred during the early summer and fall, and held the fire hazard between normal and below normal to the 30th of October, when rain started falling. This storm later developed into a snowstorm which brought the fire season to an end.

Calling Lake Division:

Following a light snowfall and a mild winter, the spring fire hazard started earlier than usual. Dry conditions with high winds caused the hazard to mount during April and the first three weeks in May when general showers occurred throughout the district. These intermittent showers continued until May 27th when heavy rains that were quite general occurred. This condition continued for some time, and as local showers occurred during June the fire hazard became normal.

The summer was quite dry with the absence of high winds, and the occurrence of local showers helped to control the hazard.

The weather during the fall was quite dry with a light rainfall in September, which held the hazard to normal until a heavy fall of snow on October 31st brought the fire season to a close.

Lac La Biche Division:

Following a mild winter with less than usual snowfall, the fire hazard started to mount during the early part of April and continued well into May. Periodic rains occurred during the latter part of May and during the summer months.

The fall of the year was very dry, ideal for harvesting, but the fire hazard started mounting. Owing to the absence of high winds, however, and the wet summer the danger was somewhat alleviated, and no serious hazard was experienced until the end of the season, which occurred on October 31st.

Slave Lake Division:

During the winter of 1943-44 the snowfall in this division was exceptionally light, and the danger from trappers' and hunters' camp-fires burning in the ground was anticipated the following spring. In February the situation was relieved somewhat by a medium fall of snow, but some fires had already started to burn in the ground and continued during the remainder of the winter. The spring break-up came early, and owing to the absence of frost in the ground the run-off was heavy, and, in addition to the absence of rain, lack of surface moisture and exceptionally high winds brought about an exceedingly high fire hazard, and from April 12th to the first part of June a number of fires were fought and extinguished. During the month of June intermittent showers fell, but no general rain occurred, and the hazard continued to rise to above normal until the middle of September, when rains occurred which again afforded relief.

From the middle of September to the latter part of October the hazard rose. A light fall of snow the first part of November brought the season to a close. Although there were some ground fires still burning, they did not continue to spread.

Peace River Division:

The close of the fire season of 1943 left the forest lands in this division abnormally dry with water levels seriously low. Winter precipitation was again light, and the fire season opened on April 1st with far less than normal surface water in sloughs and muskegs with no subsoil reserve.

This condition brought on a serious hazard which lasted until the middle of the month when a general rain occurred, but we were not favoured with any further moisture until the end of May.

During this period conditions were abnormally dry and some of the unextinguished settlers' fires previously mentioned were fanned by the high winds and were extremely difficult to control.

After the beginning of June the green vegetative growth started, and, although conditions were still dry, the situation was somewhat relieved as fires were more

easily controlled. However, killing frosts occurred earlier in the fall than usual and the fire hazard rose to a dangerous point.

This high hazard continued until the last week in October, when a light snowfall occurred, which brought the season to an end with an undesirable condition in so far as a total lack of subsoil moisture and a hazard could be anticipated the following spring.

Grande Prairie Division:

During the winter of 1943-44 only a very light covering of snow was prevalent in this division, and with the same conditions as regards lack of surface moisture referred to in the Peace River Division. During the spring the fire hazard became acute, and continued from the first part of April until the 3rd of June when a general rain occurred.

This rain, together with scattered showers, assisted greatly in bringing the hazard below normal until the middle of July, when heavy rains occurred extinguishing most of the ground fires remaining from the spring season.

The hazard remained low during July and August, but started to rise in September when high winds occurred which brought the hazard above normal.

Towards the end of September light and heavy showers of rain and a light snowfall on September 29th brought the hazard below normal. This condition continued until a light fall of snow occurred during the first week of November, which brought a bad fire season to an end.

FIRE PREVENTION AND DETECTION

The detection of fires remains, as in former years, dependent upon the lookout system and ranger patrols as a means of detecting fires in their incipient stages, a number of fires being detected and suppressed by the rangers on patrol before they reach sufficient size to be detected by the lookout system.

In the Rocky Mountain Forest Reserve we have fair coverage by the lookout system. In the Northern Alberta Forest District, however, where a start was inaugurated in the construction of a system of lookouts before the war, the shortage of man power has not permitted the erection of sufficient towers to afford the coverage required.

FIRE SUPPRESSION

During the fire season of 1944 the following fires were dealt with:

71 Class "A" or small fires.....	less than ¼ of an acre.
76 Class "B" fires	over ¼ acre up to 10 acres.
93 Class "C" fires	over 10 acres up to 500 acres.
85 Class "D" fires	over 500 acres.

COMPARISON OF FIRE LOSSES BY PERCENTAGE

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
Campers	23.7	52.8	38.9	35.4	42.3	38.3	35.9	27.4	28.8	26.0	20.9	31.5	26.8	24.0
Smokers	3.2	5.3	13.5	11.7	9.3	9.7	4.5	3.6	5.0	4.8	2.2	3.3	7.5	6.5
Settlers	21.9	17.1	17.4	17.9	8.2	11.7	20.7	14.6	14.8	12.2	22.7	13.9	12.4	14.5
Railways	6.6	4.5	2.8	5.0	10.3	4.0	9.3	4.2	4.6	6.7	7.6	11.1	23.0	16.0
Lightning .....	.6	2.6	5.2	7.5	1.0	14.1	2.2	2.3	4.0	2.8	1.6	.9	.4	3.4
Industrial														
Operations	1.9	1.1	1.7	4.2	1.0	3.2	.8	1.4	1.4	.6	1.4	3.6	1.9	3.6
Incendiary	15.1	8.2	11.8	11.2	22.7	10.1	13.5	14.6	9.8	8.9	10.8	6.9	5.7	6.8
Public Works	1.4	.5	1.4	1.3	1.0	.4	.3	.8	.6			.2	.5	.4
Unclassified	1.5	1.6		2.5	2.1	2.0	7.2	9.0	13.4	16.9	8.8	10.2	7.5	6.5
Unknown	24.1	6.3	7.3	3.3	2.1	6.5	5.6	22.1	17.6	21.1	23.8	18.1	14.4	18.7

DEPARTMENT OF LANDS AND MINES

RAILWAY FIRE LOSSES, CALENDAR YEAR 1944

This statement deals only with fires burning on forested territory under the supervision of the Alberta Forest Service, and which started within 300 feet of the centre line of the railway right of way.

Causes and number of fires:

Railway causes—Locomotives	46	
Employees	1	
Sub-total	—	47
Other causes—Campers and travellers	3	
Settlers	2	
Unknown	8	
Unclassified	1	
Sub-total	—	14
TOTAL		61

Number of acres burned:

Slashing or old burn	484 $\frac{3}{4}$
Timber land	63 $\frac{1}{2}$
Young growth	781
Not forested	360
TOTAL	1,689 $\frac{1}{4}$

Loss:

Timber	\$ 259.25
Young growth	1,435.00
Forest products	
Other property	20.00
TOTAL	\$ 1,714.25

FORESTRY

41

ANNUAL STATEMENT OF FIRES BY CAUSES, MONTHLY DISTRIBUTION, ETC., WITHIN AND OUTSIDE FOREST RESERVES, ALBERTA—CALENDAR YEAR, 1944

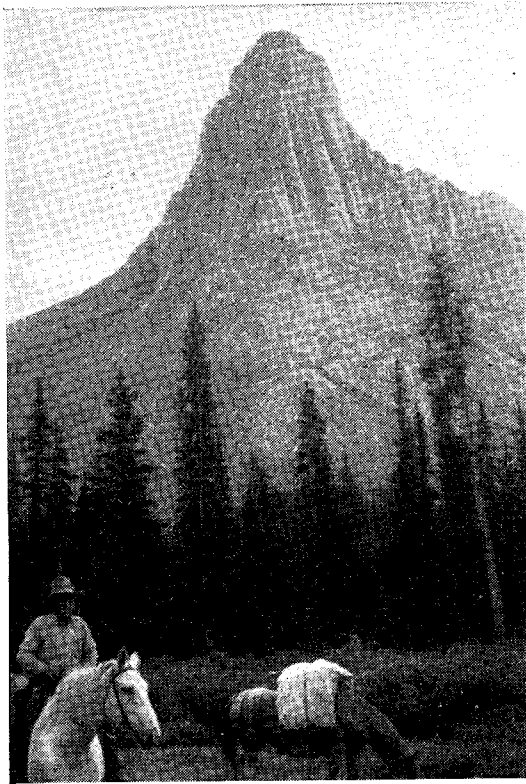
Cause	Number					P.C.	Damage	Area, Acres	Monthly Distribution												Fires Inside Provincial Forests		Fires Outside Provincial Forests						
									January	February	March	April	May	June	July	August	September	October	November	December	No.	Area, Acres	No.	Area, Acres					
	A	B	C	D	Tot.				Industrial	26	14	18	20	78	24.0%	81,552.71	126,500¼	1	4	5	16	18	3	7	5	11	5	1	2	2	1¼	76	126,498½
Camp-fires	9	2	7	3	21	6.5	19,343.50	10,311¼	2	1	1	3	11	1	1	1	1	1	1	1	1	1	1	1	1	8	21¼	13	10,290
Smokers	2	2	15	28	47	14.5	133,734.38	139,142	22	17	1	1	2	2	2	1	1	2	2	5	5	...	3	6	47	139,142
Settlers	13	25	12	2	52	16.0	1,552.25	3,494¼	...	...	1	14	15	5	9	3	5	5	...	...	...	...	...	...	...	6	49	3,488¼
Railways	4	4	2	1	11	3.4	5,313.75	1,584¼	...	...	...	...	...	1	...	2	3	2	3	...	...	...	...	...	6	11¼	5	1,573½
Lightning
Operations	1	4	7	...	12	3.6	603,909.37	1,290¼	1	...	...	...	...	5	1	3	...	...	...	2	...	...	...	...	5	75¼	7	1,215
Incendiary	3	4	8	7	22	6.8	13,841.50	11,122¼	...	...	...	8	7	...	2	3	1	1	...	...	...	...	...	...	...	...	22	11,122¼
Public Works
Unclassified	2	9	6	4	21	6.5	743,034.00	273,106½	...	...	...	6	2	1	4	6	2	2	...	...	...	...	...	...	1	2	20	273,104½
Unknown	11	12	18	20	61	18.7	96,601.75	156,105½	1	...	...	...	21	20	2	2	3	3	...	...	...	...	...	...	3	140	58	155,965½
TOTALS	71	76	93	85	325	100.0	\$1,698,883.21	722,658	5	5	7	90	100	9	28	24	28	23	3	3	28	257½	297	722,400½					
Per cent.	21.8	23.3	28.7	26.2	100.0	100.0			1.5	1.5	2.2	27.7	30.8	2.8	8.6	7.4	8.6	7.1	.9	.9	8.6		91.4						



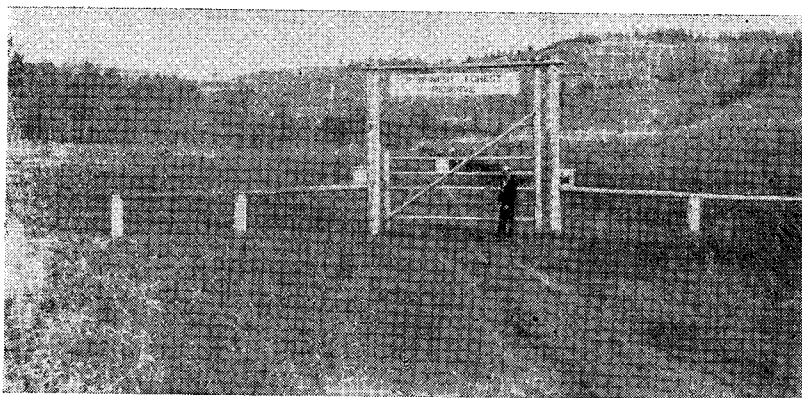
Coleman Ranger Station House, Crowsnest-Bow River Forest



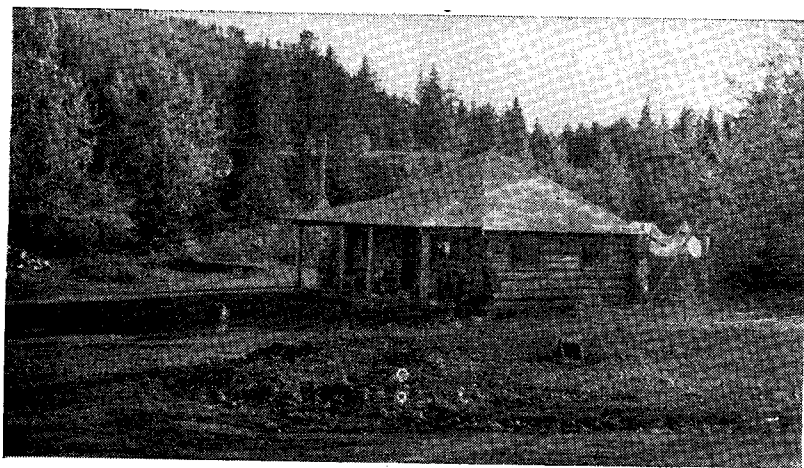
Brazeau River at Junction with Southesk River, Brazeau-Athabaska Forest



Cathedral Mountain, Eagles Nest Pass



Entrance Gate, front view, East Porcupine District, Crowsnest-Bow River Forest



New Lynx Creek Cabin, Crowsnest-Bow River Forest Reserve

ANNUAL SUMMARY OF FOREST FIRE LOSSES, ALBERTA—CALENDAR YEAR, 1944

FIRE CAUSES	NUMBER OF FIRES					LANDS AFFECTED								LOSS										SUPPRESSION COSTS		
						Ownership		AREA Total, Acres	CONDITION				TIMBER (MERCHANTABLE AND CUT-OVER)					Loss of Timber	Loss of Young Growth	Loss of Other Property	Total Loss	Ranger Service	Other Expenditures	Total		
	Public, Acres	Private, Acres	Merchantable Timber, Acres	Cut-over Timber, Acres	Young Growth, Acres	Not Forested, Acres	SALVABLE			UNSAVABLE																
							Saw-timber, M.ft.B.M.	Other, Cords	Depreciation	Saw-timber, M.ft.B.M.	Other, Cords	Loss														
FIRES WITHIN FOREST RESERVES																										
Campers	1	1			2	1 1/4		1 1/4			1 1/2	1/4							\$ 7.50			\$ 7.50	\$ 24.24		\$ 24.24	
Smokers	5	2	1		8	21 1/4		21 1/4	4	17		1/4		210	\$ 100.00		21	\$ 15.75	\$ 123.25			123.25	\$ 128.95	\$ 147.48	276.43	
Settlers																										
Railways	1	2			3	6		6			2	4										5.00		51.88	51.88	
Lightning	4	2			6	11 1/4		11 1/4		1	10 1/4											13.75		56.30	107.36	
Industrial Operations	1	2	2		5	70	5 1/4	75 1/4		50	20	5 1/4		300				225.00		100.00	\$600,000.00	600,325.00	59.46		59.46	
Unclassified		1			1	2		2			2									10.00		10.00	14.89		14.89	
Unknown	1	1	1		3	140		140			140									662.50		662.50	177.71	252.96	430.67	
TOTALS	13	11	4		28	252 1/4	5 1/4	257 1/2	4	68	175 3/4	9 3/4		510	\$ 100.00		21	\$ 15.75	\$ 348.25	\$ 798.75	\$600,000.00	\$ 601,147.00	\$ 508.19	\$ 456.74	\$ 964.93	
FIRES OUTSIDE FOREST RESERVES																										
Campers	25	13	18	20	76	126,477 1/2	21	126,498 1/2	51,936	3,060	18,652	52,850 1/2	7,960	2,057	\$ 9,447.87	11,610	30,384	\$ 28,164.54	\$ 36,178.06	\$ 44,967.15	\$ 400.00	\$ 81,545.21	\$ 1,606.92	\$ 25,179.42	\$ 26,786.34	
Smokers	4		6	3	13	9,750	540	10,290	2,186	265	7,030	809	440	100	277.50	1,867	40	1,974.00	2,251.50	16,968.75		19,220.25	862.24	905.59	1,767.83	
Settlers	2	2	15	28	47	120,462	18,680	139,142	27,425	2,345	31,050	78,322	4,820	18,211	3,210.00	16,710	74,346	63,450.63	71,545.63	58,043.75	4,145.00	133,734.38	1,305.25	17,587.53	18,892.78	
Railways	12	23	12	2	49	3,225 1/4	263 1/2	3,488 3/4	68 1/2	580	462	2,378 1/4	320 1/4	10	139.25	126		258.25	391.25	1,106.00	50.00	1,547.25	153.06	160.00	313.06	
Lightning		2	2	1	5	1,173 1/2	400	1,573 1/2	405	1,021	447 1/2	147 1/2		8,160	1,755.00	35		35.00	35.00	5,265.00		5,300.00	325.51	3,086.54	3,412.05	
Industrial Operations		2			7	700	515	1,215	430	140		545	1,980	725	3,189.37		220	165.00	3,354.37		230.00	3,584.37	146.75	2,893.63	3,040.38	
Incendary	3	4	8	7	22	8,264 3/4	2,858	11,122 3/4	6,405		2,200 3/4	2,517	100	140	140.00	249,926	13,567	11,445.50	11,560.50	2,281.00		13,841.50	346.09	1,847.92	2,194.01	
Unclassified	2	8	6	4	20	272,099 1/4	1,005 1/4	273,104 1/4	139,367		116,492	17,245 1/2				279,380	700,040	558,989.00	558,939.00	184,035.00		743,024.00	991.84	9,898.81	10,890.65	
Unknown	10	11	17	20	58	147,438 1/2	8,527	155,965 1/2	22,228 1/2	990	14,385 1/4	118,361 3/4	25,006	270	23,780.50	20,091	31,920	46,660.75	71,931.25	16,379.00	7,629.00	95,939.25	1,033.92	15,052.29	16,086.21	
TOTALS	58	65	89	85	297	689,590 3/4	32,809 3/4	722,400 1/2	250,451	8,401	190,372	273,176 1/2	40,626 1/4	29,672	\$41,939.49	579,745	850,517	\$711,142.67	\$756,236.56	\$329,045.65	\$ 12,454.00	\$1,097,736.21	\$ 6,771.58	\$ 80,349.21	\$ 87,120.79	
FIRES WITHIN AND WITHOUT FOREST RESERVES																										
Campers	26	14	18	20	78	126,479 1/4	21	126,500 1/4	51,936	3,060	18,653 1/2	52,850 3/4	7,960	2,057	\$ 9,447.87	11,610	30,384	\$ 28,164.54	\$ 36,178.06	\$ 44,974.65	\$ 400.00	\$ 81,552.71	\$ 1,631.16	\$ 25,179.42	\$ 26,810.58	
Smokers	9	2	7	3	21	9,771 1/4	540	10,311 1/4	2,190	282	7,030	809 1/4	440	310	377.50	1,867	61	1,989.75	2,374.75	16,968.75		19,343.50	991.19	1,053.07	2,044.26	
Settlers	2	2	15	28	47	120,462	18,680	139,142	27,425	2,345	31,050	78,322	4,820	18,211	3,210.00	16,710	74,346	63,450.63	71,545.63	58,043.75	4,145.00	133,734.38	1,305.25	17,587.53	18,892.78	
Railways	13	25	12	2	52	3,231 1/4	263 1/2	3,494 3/4	68 1/2	580	464	2,382 1/4	320 1/2	10	139.25	126		258.25	391.25	1,111.00	50.00	1,552.25	204.94	160.00	361.94	
Lightning	4	4	2	1	11	1,184 3/4	400	1,584 3/4	405	1,022	464	147 1/2		8,160	1,755.00	35		35.00	35.00	5,278.75		5,313.75	376.57	3,142.84	3,519.41	
Industrial Operations	1	4	7		12	770	520 1/4	1,290 1/4	430	190	120	550 1/4	1,980	1,025	3,189.37		220	165.00	3,579.37	100.00	600,230.00	603,909.37	206.21	2,893.63	3,099.84	
Incendary	3	4	8	7	22	8,264 3/4	2,858	11,122 3/4	6,405		2,200 3/4	2,517	100	140	140.00	249,926	13,567	11,445.50	11,560.50	2,281.00		13,841.50	346.09	1,847.92	2,194.01	
Unclassified	2	9	6	4	21	272,101 1/4	1,005 1/4	273,106 1/2	139,367		116,494	17,245 1/2				279,380	700,040	558,989.00	558,939.00	184,045.00		743,034.00	1,006.73	9,898.81	10,905.54	
Unknown	11	12	18	20	61	147,578 1/2	8,527	156,105 1/2	22,228 1/2	990	14,525 1/4	118,361 3/4	25,006	270	23,780.50	20,091	31,920	46,660.75	71,931.25	17,041.50	7,629.00	96,601.75	1,211.63	15,305.25	16,516.88	
TOTALS	71	76	93	85	325	689,843	32,815	722,658	250,455	8,469	190,547 1/4	273,186 1/4	40,626 1/2	30,183	\$42,039.49	579,745	850,538	\$711,158.42	\$756,584.81	\$329,844.40	\$612,454.00	\$1,698,883.21	\$ 7,279.77	\$ 80,805.95	\$ 88,085.72	
SUMMARY BY DIVISIONS																										
N.A.F.D.	43	58	81	81	263	685,410	27,412 1/4	712,822 1/4	244,434	7,051	188,680 1/4	272,657 1/2	36,605 1/2	21,301	\$37,307.99	579,745	850,297	\$711,051.67	\$750,129.06	\$321,145.65	\$ 12,454.00	\$1,083,728.71	\$ 6,046.47	\$ 73,586.45	\$ 79,632.92	
Outside Reserves	15	7	8	4	34	4,180 3/4	5,397	9,577 1/4	6,017	1,350	4,180 3/4	519	4,021	8,372	4,631.50		220	91.00	6,107.50	7,900.00		14,007.50	725.11	3,025.28	3,750.39	
Clearwater	4	1	1		6	19		19		17	1 1/2	1/2		200	100.00				100.00	7.50		107.50	160.83	86.78	247.61	
Crowsnest-Bow	5	5	3		13	224 1/4		224 1/4	1	51	172 1/4			310					232.50	786.25		1,018.75	244.00	348.48	592.48	
Brazeau-Athabaska	4	5			9	9	5 1/4	14 1/4	3		2	9 1/4					21	15.75	15.75	5.00	600,000.00	600,020.75	103.36	21.48	124.84	
Cypress Hills																								3,737.48	3,737.48	
TOTALS	71	76	93	85	325	689,843	32,815	722,658	250,455	8,469	190,547 1/4	273,186 1/4	40,626 1/2	30,183	\$42,039.49	579,745	850,538	\$711,158.42	\$756,584.81	\$329,844.40	\$612,454.00	\$1,698,883.21	\$ 7,279.77	\$ 80,805.95	\$ 88,085.72	

M.ft.B.M.—Thousand feet board measure.
*N.A.F.D.—Northern Alberta Forest District

SUMMARY SHOWING TOTAL NUMBER OF FIRES AND BURNT OVER AREA
FROM 1931 TO 1944 INCLUSIVE

Year	Total No. of Fires	Total Acreage	Not Forested	Net Acreage
1931	622	604,876.12	209,064.75	395,811.37
1932	379	136,117.89	68,253.42	67,864.47
1933	288	93,765.00	30,955.88	62,809.12
1934	240	58,870.00	21,656.50	37,213.50
1935	97	6,319.75	3,267.75	3,052.00
1936	248	204,454.00	46,534.00	157,920.00
1937	375	835,259.00	155,069.50	680,189.50
1938	521	1,758,345.50	842,384.00	915,961.50
1939	499	429,139.25	159,774.50	269,364.75
1940	313	474,244.25	108,597.50	365,646.75
1941	445	1,355,424.50	459,475.00	895,949.50
1942	215	325,815.75	182,208.25	143,607.50
1943	265	515,149.25	409,503.50	105,645.75
1944	325	722,658.00	273,186.25	449,471.75
	4,832	7,520,438.26	2,969,930.80	4,550,507.46

RADIO

Although the fire season opened unusually early all radio equipped stations were in operation shortly after the commencement of the season, including Puskwaska Tower located on Section 8, Township 72, Range 23, West of the 5th Meridian.

The Puskwaskau Tower is equipped with a thirty watt transmitter receiver combination set which was previously used at Peace River. During the early part of the season a complete new installation was made at the Forestry Headquarters located in the Town of Peace River. This set is a standard one hundred watt transmitting unit, and the installation has greatly increased the communication efficiency at that point.

Portable units were provided for employees of the Department at Embarras Portage, Fort Fitzgerald, Little Red River, Keg River and Upper Hay River. The use of these sets has helped greatly in administration, especially regarding matters handled by the Fish and Game Commissioner.

FOREST ADMINISTRATION

Provincial Forest Reserves:

In order to meet the continued demand for forest products, applications for timber sales continued heavy. The shortage of labour and lack of snow did not permit the operators to meet the demand.

The issuance of permits for Miscellaneous Uses continued at practically the same level as in previous years.

The demand for mine timber fell off somewhat as a number of the mine operators had accumulated stock piles. This was done during the time the Dominion Government was paying a bonus for the cutting of mine props.

TIMBER CUT UNDER PERMIT, ALBERTA FOREST RESERVES—FISCAL YEAR 1944-45

	Cypress Hills	Crownest- Bow River	Clearwater	Brazeau- Athabaska	Totals
Number of permits	322	685	21	47	1,075
Fuelwood, dry (cords)	453	1,557	222	73	2,305
Fuelwood, green (cords)			240		240
Mine timber, dry (lineal feet)		115,000		179,600	294,600
Lagging (lineal feet)		17,000			17,000
Fence posts	32,677	12,898	496	200	46,271
Saw logs (F.B.M.)	9,890	84,200		75,000	169,090
Round timber (pieces)	36,123				36,123
Round timber (lineal feet)	6,280				6,280
Fence droppers (pieces)		3,600			3,600
Fence Rails (pieces)		15,158	234		15,392
Telephone poles (lineal feet)		2,940			2,940
Railways ties				2,000	2,000
Mine ties (lineal feet)		1,000			1,000
Building Logs (lineal feet)		12,632	1,604	3,092	17,328
Piling (lineal feet)		4,418			4,418
Roof Poles		15	79		94

DEPARTMENT OF LANDS AND MINES

TIMBER OPERATIONS ON FOREST RESERVE TIMBER SALES—FOR THE PERIOD JAN. 1,
1944, TO MARCH 31, 1945

	Crowsnest- Bow River	Clearwater	Brazeau- Athabaska	Totals
Number of active operations	29	17	34	80
Lumber, feet board measure	9,997,518	4,005,474	15,036,973	29,039,965
Railway ties .....	.....	44,852	254,973	299,825
Piling, (lineal feet) .....	.....	624,785	.....	624,785
Mine timber (lineal feet)	1,086,884½	3,776,610½	517,551	5,381,046
Lagging (lineal feet)	500,795	100,586½	.....	601,381½
Telegraph and Telephone Poles (lineal feet)	1,363	.....	6,000	7,363
Building logs and culvert timber (lineal feet) .....	.....	1,456	.....	1,456
Mine ties (lineal feet) .....	.....	1,665	17,198	18,863
Fence Rails	2,375	.....	.....	2,375
Cordwood	593	100	.....	693
Slabs (cords)	1,759½	80,919	896½	83,575
Lath	14,000	.....	.....	14,000

Provincial Lands:

The acute shortage of labour had a very adverse affect on the production of timber on Provincial lands during the fiscal year under review as the demand far exceeded the supply. Although the prisoners of war employed quite extensively at a number of the mills assisted in bringing up considerably the total cut, it would have been much higher had efficient labour been available.

During the winter of 1943-44 the Canadian National Railways accepted approximately 10% of their requirements of ties manufactured from Spruce. These, however, were for experimental purposes, and they have discontinued the acceptance of Spruce for railway track ties.

This may not be a final decision, but it is surmised by the operators that until such time as actual tests are made with Spruce ties previously accepted under working conditions, no more Spruce will be called for.

The number of smaller operators working on Permit Berths and Special Timber Permits was not as seriously affected by the labour shortage as the larger mills owing to their ability to employ some of their relatives and neighbours.

STATEMENT OF TIMBER OPERATIONS FOR THE PERIOD JANUARY 1, 1944, TO MARCH 31, 1945, ON PROVINCIAL LANDS IN THE
EDMONTON DISTRICT AND IN THE CALGARY AND PEACE RIVER LAND AGENCIES

(a) OPERATIONS ON LICENSE TIMBER BERTHS,

	Head Office Edmonton District	Calgary Agency	Peace River Agency	Totals
Number of active operations	100	16		116
Lumber, feet, board measure	106,172,400	13,667,140		119,839,540
Railway ties	149,140	4,981		354,121
Mine timber, lineal feet		1,267,739		1,267,739
Slabs, cords	152	4		156
Lath				
Building logs, lineal feet	1,274,250	13,100		1,287,350
Fence Posts	38,972			38,972
Telegraph and Telephone Poles, lineal feet	263,068	1,379		264,447
	185			185

(b) OPERATIONS ON TIMBER PERMIT BERTHS:

Number of active operations	361	90		451
Lumber, feet, board measure	121,645,203	12,964,358		134,609,561
Railway ties	1,522,514	334,445		1,656,959
Piling, lineal feet	14,390			14,390
Mine timber, lineal feet	241,581	723,979		965,560
Lath	15,113			15,113
Lagging, lineal feet	659,832	605,163		1,264,995
Telegraph and telephone poles, lineal feet				
Building logs and culvert timber, lineal feet	42,260	19,182		19,182
Mine ties, lineal feet	13,514	9,431		51,691
Fuelwood, cords	8	206		214
Fence posts	1,500			1,500
Slabs, cords		132		132

(c) OPERATIONS UNDER SPECIAL TIMBER PERMITS:

(Sec. 68 of the Timber Regulations)

Number of active operations	1,055	130		1,185
Lumber, feet, board measure	47,565,212	3,317,029		50,882,241
Railway ties	625,637	86,505		712,142
Piling, lineal feet	25,165			25,165
Telegraph and telephone poles, lineal feet	48,286	35,373		83,659
Building logs and culvert timber, lineal feet	106,268			106,268
Fence Posts	19,351			19,351
Fuelwood, cords	2,254			2,254
Mine ties, lineal feet		1,200		1,200
Lath				
Slabs, cords	150			12,850
				150

•(d) PROVINCIAL LANDS TIMBER PERMITS ISSUED AUTHORIZING
THE CUTTING OF MATERIAL SHOWN HEREUNDER:

	Head Office Edmonton District	Calgary Agency	Peace River Agency	Totals
Number of permits issued	1,261	195	828	2,284
Building logs, lineal feet	26,417	810	23,687	50,914
Mine timber, lineal feet	255,800	512,000	.....	767,800
Lagging .....	.....	432,000	.....	432,000
Telephone poles, lineal feet	43,610	800	4,000	48,410
Piling, lineal feet	15,410	864	14,546	30,446
Lumber, feet, board measure	4,746,623	137,985	5,821,958	10,706,566
Fence posts	132,380	83,465	52,960	268,805
Fence droppers .....	.....	19,600	.....	19,600
Roof poles	633	344	32,650	33,827
Fence rails	25,360	15,620	169,525	210,505
Fuel, cords	6,211	1,290	1,969	9,470
Railway ties	1,025	.....	500	1,525
Shingles	70,000	.....	67,000	137,000
Shingle bolts, cords	35½	.....	159	194½
Lath bolts, cords	100	.....	.....	100
Guard rails, lineal feet .....	.....	.....	3,500	3,500

•The figures shown under this heading are the amounts authorized to be cut. The amounts actually cut under this heading are not available.

STATEMENT OF TIMBER OPERATIONS FOR THE PERIOD JANUARY 1, 1944, TO MARCH 31, 1945, ON SCHOOL LANDS IN THE EDMONTON DISTRICT AND IN THE CALGARY AND PEACE RIVER LAND AGENCIES

(a) OPERATIONS ON TIMBER PERMIT BERTHS:

Number of active operations	18			20
Lumber, feet board measure	3,184,478	2	925,380	4,109,858

(b) OPERATIONS UNDER SPECIAL TIMBER PERMITS:

(Section 25 (g) of the Timber Regulations)

Number of active operations	52	23		75
Lumber, feet board measure	1,557,051	1,437,973		2,995,024
Railway ties	27,050	2,635		29,685
Fence posts	95			95
Fuelwood, cords	330			330

(c) SCHOOL LANDS TIMBER PERMITS ISSUED AUTHORIZING THE CUTTING OF MATERIAL SHOWN HEREUNDER:

Number of permits issued	376	25	67	468
Building logs, lineal feet	3,164		600	3,764
Telephone poles, lineal feet	1,500			1,500
Lumber, feet board measure	781,348	15,765	476,910	1,274,023
Fence posts	13,800	200	800	14,800
Roof poles	4,100			4,100
Fence rails	2,370			2,370
Fuel, cords	2,710	324	105	3,139

*The figures shown under this heading are the amounts authorized to be cut. The amounts actually cut under this heading are not available.

SUMMARY OF TIMBER OPERATIONS, PROVINCIAL AND SCHOOL LANDS—OCTOBER 1, 1930, TO MARCH 31, 1945

	Oct. 1/30.	May 31/31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38
Lumber, feet, board measure	40,582,155	51,376,498	55,484,814	62,840,093	71,897,832	90,052,681	104,492,418	146,301,510	
Railway ties	667,606	231,715	266,748	650,790	1,143,426	1,422,197	1,205,237	1,030,700	
Piling, lineal feet	43,760	18,829	21,667	28,968	22,394	70,636	13,798	79,434	
Mine timber, lineal feet	2,764,898½	2,908,854	2,094,116	3,224,419	4,282,869	4,415,627	3,232,563	4,928,274	
Telegraph and Telephone poles, lineal feet	7,965	6,574	27,005	15,000	29,508	104,505	18,484	26,298	
Building logs and culvert timber, lineal feet	690,770	1,089,570	928,092	543,898	369,385	1,334,709	1,024,621	639,009	
Fence rails	1,102,737	2,116,312	1,005,129	2,831,889	1,288,860	605,537	1,305,364	1,286,857	
Fence posts	333,786	573,412	342,656	686,064	410,577	184,673	363,599	346,677	
Fence droppers		300	4,723	3,594	1,600				
Fuelwood, cords	222,643	410,401	244,855	543,428	283,031	127,186	277,202	257,095	
Slabs, cords	7,485	19,768½	11,258	16,815	15,990	74,139½	22,225	64,581	
Mine ties, lineal feet	1,512	64			114				
Shingles			1,002	12,415	45,970				
Shingle bolts, cords				214,152	1,675,050	1,224,360	965,000	1,152,000	
Lath	744,982	1,840,900	3,962,605	2,505,406	75	148	113	400	
Lath, snow fence					6,062,460	7,209,796	6,905,796	8,141,699	
Tramway ties									
Round timber, pieces				9,881	61,767				
Birch veneer, lbs.									
Radio poles, number									
Signal poles, number									
Lath bolts, cords									
Guard rails, lineal feet									
Christmas trees			24		2	50			
Switch ties									
Number of inspection reports submitted by Timber Inspectors							2,796	2,811	2,543
Number of timber seizures made							158	189	206

DEPARTMENT OF LANDS AND MINES

	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	Jan. 1, 1945, to May 31, 1945	Totals
Lumber, feet, board measure	122,450,579	131,497,021	185,752,504	272,345,129	228,703,425 1/2	182,407,992	353,625,868	2,099,810,519 1/2
Railway ties	1,185,819	829,846	1,375,024	1,086,823	1,797,703	1,286,684	3,056,257	17,237,575
Piling, lineal feet	354,044	38,850	38,343	25,871	73,806	148,608	699,204	1,678,432
Mine timber, lineal feet	4,110,149	5,157,389	5,105,558	7,662,220	9,411,121	9,991,106	10,992,121 1/2	80,281,285
Telegraph and Telephone poles, lineal feet	20,231	114,083	191,611	83,360	25,943	52,565	163,239	896,271
Building logs and culvert timber, lineal feet	1,519,285	263,252	191,510	137,341	222,535	293,315	276,673	9,550,165
Fence rails	1,181,567	1,105,222	674,106	398,063	225,550	151,868	230,642	15,509,003
Fence posts	367,200	363,240	222,693	251,377	145,810	265,914	350,822	5,208,060
Fence droppers	3,400	1,200	2,440	76,441	5,500	8,345	23,200	56,302
Roof poles	239,467	227,952	136,402	16,881 1/2	38,907	37,283	38,021	3,160,294
Fuelwood, cords	18,504 1/2	17,864 1/4	13,861	16,881 1/2	19,959 1/2	25,786 1/2	18,645	363,762 1/4
Slabs, cords .....	.....	.....	.....	.....	1,921	956 1/2	84,013	88,380 1/2
Mine tie, lineal feet .....	.....	8,749	4,717	1,500	17,880	35,124	34,577	161,934
Shingles	572,150	712,250	460,000	833,940	618,500	537,000	137,000	9,101,402
Shingle bolts, cords	380 1/2	344 1/2	454 1/3	309	230 1/4	464 1/2	194 1/2	13,534 1/12
Lath	4,426,525	4,259,185	2,931,216	7,539,555	5,548,928	233,850	1,329,313	63,642,216
Lath, snow fence .....	.....	.....	.....	364,290	307,920	.....	.....	672,210
Tramway ties .....	.....	140	6,662	2,454	7,548	.....	.....	16,804
Round timber, pieces .....	.....	.....	23,390	33,784	582	92,418	36,123	257,945
Birch veneer, lbs. ....	.....	.....	.....	4,792,022	4,349,928	4,837,260	.....	13,979,210
Radio poles, number .....	.....	.....	.....	.....	4	2	.....	6
Signal poles, number .....	.....	.....	.....	.....	.....	64,275	.....	64,275
Lath bolts, cords .....	.....	135	20	60	.....	.....	100	315
Guard rails, lineal feet .....	.....	3,150	.....	.....	.....	.....	3,500	6,650
Christmas trees .....	.....	.....	11	.....	.....	.....	.....	87
Switch ties .....	.....	.....	4,089	.....	.....	.....	.....	4,089
Number of inspection reports submitted by Timber Inspectors	2,086	2,254	2,758	2,488	2,601	2,699	2,728	.....
Number of timber seizures made	142	170	206	198	158	156	201	.....

GRAZING

After the previous mild winter with light snowfall, most stock entered the different grazing divisions in good shape, and although the season was quite dry, the grass ripened early and practically all stock left in splendid condition. However, in some localities, it was found necessary to remove stock from the summer range before the end of the normal grazing season as water and grass were becoming scarce.

The drouth in the southern part of the Province caused many of the springs and small streams to dry up. This resulted in the stock moving to areas where water was readily available, and resulted in over-grazing in places.

In the Clearwater Forest it was found necessary to remove some of the stock after they had been on the range a very short time, as it was found that bloat as the result of some poisonous weeds was quite prevalent.

Losses of live stock reported on the Crowsnest-Bow River Forest Reserve were somewhat lighter than other years in so far as cattle and horses were concerned, but the loss of sheep was very heavy, although the exact number is not known as some of the bands were removed without the rangers being notified.

GRAZING STATEMENT—ALBERTA FOREST SERVICE, 1944-45

Forest	No. of Permits	No. of Horses	No. of Cattle	No. of Sheep
Cypress Hills	59	397	2,778	.....
Crowsnest-Bow River	298	1,809	21,651	5,534
Clearwater	71	831	155	.....
Brazeau-Athabaska	117	691	155	.....
TOTALS	545	3,728	24,739	5,534

COMPARATIVE STATEMENT, GRAZING—ALBERTA FOREST SERVICE

	1931	1932	1933	1934	1935	1936	1937	1938
Number of permits	456	606	493	517	533	497	529	437
Number of cattle	15,041	20,086	20,230	22,557	25,097	23,407	18,921	22,280
Number of horses	3,417	3,377	3,185	2,541	2,207	2,441	3,418	3,024
Number of sheep	4,379	7,465	6,705	3,078	4,114	5,443	3,174	4,791

	1939	1940	1941	1942	1943	1944	Totals	Average
Number of permits	482	435	479	507	527	545	7,043	503.0
Number of cattle	22,386	23,831	22,451	22,857	23,612	24,739	307,495	21,963.9
Number of horses	2,731	3,194	3,332	3,731	3,955	3,728	44,281	3,162.9
Number of sheep	6,883	3,954	4,745	4,722	3,542	5,534	68,529	4,894.9

IMPROVEMENTS

Owing to the early start and continuance of the fire season on the Crowsnest-Bow River Forest, improvements made were not as great as in previous years as the staff were forced to spend more time than usual in the vicinity of their headquarters so that they could be contacted in case of an outbreak of fire. On the Bow River Forest, however, the fire season was not as acute, and a great number of the existing improvements were maintained at the usual standard.

In the Clearwater Forest, the fire season was exceptionally favourable to improvement work, and a great number of man-days were spent in maintaining the existing improvements. We did, however, find it necessary to spend considerable time in building new corduroy and bridges over wet places that in a normal year were quite dry.

On the Brazeau-Athabaska Forest a great amount of improvement work was completed, but the existing trails and roads also suffered from the heavy rains and floods, necessitating the re-allocation of some of the old trails on higher ground.

The use of modern machinery is highly essential if we are to maintain roads and trails in forested territory to a standard that will permit ready access to outlying points in case of fire.

In view of the labour shortage and insufficient funds, we have been unable to employ the required maintenance crews for several years past, with the result that the personnel are finding it impossible to maintain all improvements in satisfactory condition.

In the Northern Alberta Forest District we have been able to carry on very little improvement, which is badly needed to render accessible bodies of timber in case of fire.

It is hoped that a large programme can be carried on after the cessation of hostilities under a joint plan of reconstruction, proposals for which have been outlined and forwarded to the Dominion Government for their consideration.

IMPROVEMENT STATEMENT

NEW CONSTRUCTION PROJECTS:

Forest	Houses	Garages, Sheds, etc.	Fences	Fields (breaking in acres)	Water Supply Systems	Barns and Stables	Telephones (miles)	Corrals	Bridges	Grounds	Trails (Miles)	Cabins	Fireguard Roads (Miles)	Tourist Stoves	Radio Portables	Miscellaneous
Cypress Hills	1	2	...	...	1	...	1	...	...	...	...	...	1/2	...	...	1
Grosvont	1	2	...	...	...	...	...	2	...	2	...	1	...	...	...	1
Bow River	1	2	...	...	...	...	...	...	...	...	...	2	...	...	1	2
Clearwater	...	1	3	1	...	...	4	1	...	...	27	3	...	...	...	...
Brazau	...	3	2	...	...	...	...	1	...	...	16 1/4	1	...	...	...	...
Atabaska	...	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	2	11	7	1	1	...	5	4	...	2	43 3/4	8	1/2	...	1	4

MAINTENANCE PROJECTS:

Forest	Houses	Cabins	Barns and Stables	Telephones (Miles)	Tails (Miles)	Roads (Miles)	Fences	Corrals	Water Supply Systems	Garages, Sheds, etc.	Look-out Towers and Cabins	Grounds	Hay Meadows & Pastures	Ferries	Bridges	Miscellaneous
Cypress Hills	3	1	5	12½	...	117	2	...	11	...	...	2	...	...	...	12
Crowsnest	7	3	4	159½	161	92½	14	1	3	7	...	9	...	...	2	4
Bow River	6	11	9	240	517½	31	19	8	8	11	...	14	8	...	...	4
Clearwater	3	13	5	184	1031½	31	10	6	1	7	...	7	2	1	...	1
Brazos	4	6	2	197½	314½	18	9	1	1	4	2	1	5	...	...	2
Atchafalaya	3	12	1	78½	474½	72	9	1	2	4	2	...	2	...	1	3
TOTALS	26	46	26	872	2498¾	336½	63	17	26	33	4	33	20	1	3	26

IMPROVEMENTS—STATEMENT OF MAN-DAYS WORKED

NEW CONSTRUCTION PROJECTS:

Forest	Houses	Garages, Sheds, etc.	Fences	Look-out Towers	Water Supply System	Barns and Stables	Telephones	Corrals	Bridges	Grounds	Trails	Cabins	Tourist Stoves	Fireguard Roads	Radio Portables	Miscel- laneous
Cypress Hills	1 1/2	49	...	...	15 1/2	...	1/2	...	...	...	...	149 1/2	...	...	...	...
Crowsnest	26	4 1/2	...	...	...	...	...	41 1/2	...	31 1/2	7 1/2	56	...	...	5	29 1/2
Bow River	...	30 1/2	16	...	...	...	...	...	...	...	...	145 1/2	...	...	...	...
Clearwater	...	108 1/2	11	...	...	...	10	6	...	...	19	97 1/2	...	...	...	...
Brazeau	...	51 1/2	37	...	...	...	...	...	...	...	15 1/2	23	...	...	...	...
Athabaska	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	27 1/2	244	64	...	15 1/2	...	10 1/2	51 1/2	...	31 1/2	42	471 1/2	...	...	5	37 1/2

MAINTENANCE PROJECTS:

Forest	Houses	Cabins	Barns and Stables	Telephones	Trails	Roads	Fences	Corrals	Water Supply Systems	Garages, Sheds, Etc.	Look-out Towers and Cabins	Grounds	Hay Meadows & Pastures	Ferries	Bridges	Miscel- laneous
Cypress Hills	11	3	12 1/2	19 1/2	46 1/2	7	5 1/2	11 1/2	45	...	...	11	...	...	...	69
Crowsnest	103 1/2	5 1/2	8 1/2	225 1/2	400 1/2	206	165 1/2	82 1/2	8	23	...	72 1/2	30	...	62 1/2	14
Bow River	48	65	20 1/2	301	374	280	239 1/2	23 1/2	47	24 1/2	...	137 1/2	83	...	...	10
Clearwater	25 1/2	68	3 1/2	238	244	126	212 1/2	2 1/2	47	19	...	65	86 1/2	...	...	13
Brazeau	40 1/2	20	7	294 1/2	244	6	64	2 1/2	2 1/2	10 1/2	26	1	10	...	...	16 1/2
Athabaska	11	49 1/2	4	84 1/2	269 1/2	202 1/2	69	1	21 1/2	19 1/2	2	...	16 1/2	...	26	23
TOTALS	239 1/2	211	56	1163	1334 1/2	827 1/2	756	113	129	97	28	287	226	...	88 1/2	145 1/2

MILEAGE TRAVELLED BY EMPLOYEES OF THE ALBERTA FOREST SERVICE
FISCAL YEAR 1944-45

Divisions	Foot	Saddle	Driving	Speeder	Auto	Canoe	Rowboat	Motorboat	Plane	Railway	Others	Total
Northern Alberta Forest District	26,039	33,010½	27,423½	12,373	150,707	489	103	5,897	2,545	24,822	10,156	293,565
Crowsnest-Bow River Forest	4,111	40,567	3,822	.....	102,922	.....	.....	22	.....	2,581	.....	154,025
Clearwater Forest	5,700	6,763	1,948	1,970	34,798	.....	.....	.....	.....	2,686	12	53,877
Brazeau-Athabaska Forest	10,366	16,492	1,623	5,460	24,384	.....	.....	.....	.....	12,623	620	71,568
Cypress Hills Forest	183½	1,276	470	.....	4,533½	.....	.....	.....	.....	1,152	30½	7,645½
Radio	72	510	187	.....	13,731	.....	.....	.....	1,900	5,426	320	22,146
TOTALS	46,471½	98,618½	35,473½	19,803	331,075½	489	103	5,919	4,445	49,290	11,138½	602,826½

PUBLICITY

Numerous warnings were given through the press to the general public regarding fire hazards, and extensive use was made of local radio stations at different times during the fire season. We were also able to contact a great many travelling in the forests for recreation and health, but it has been noticed that owing to the gasoline shortage those using the forests were not as many as in other years.

NURSERY AND TREE DISTRIBUTION

Continued progress is being made in the distribution of nursery stock from the Oliver Mental Institute and the Fort Saskatchewan Gaol Nurseries. However, the demand has fallen off somewhat as a number of farmers have written in regretting their inability to plant any large number of trees by reason of the shortage of labour, stating that their sons or daughters were now serving in the armed forces, and they were unable to procure labour to assist in farm work.

The results secured at the Lethbridge Gaol Nursery do not continue to improve. The reason for the lack of success is the tendency of the water used for irrigation bringing alkali to the surface. This is very detrimental, and it is thought that it will be necessary to discontinue the nursery at this point and some time in the future to select a more suitable site.

Tree Distribution:

The following species and quantities were given out from Oliver in the spring of 1944:

<i>Transplants:</i>	
White Spruce (<i>Picea glauca</i>)	16,400
Colorado Blue Spruce (<i>Picea pungens</i>)	2,665
Norway Spruce (<i>Picea excelsa</i>)	1,579
Lodgepole Pine (<i>Pinus murrayana</i>)	7,808
Red Pine (<i>Pinus resinosa</i>)	945
Yellow Pine (<i>Pinus ponderosa</i>)	935
Scotch Pine (<i>Pinus sylvestris</i>)	586
Green Ash (<i>Fraxinus pennsylvanica</i>)	4,903
Bur Oak (<i>Quercus macrocarpa</i>)	3,675
Red Oak (<i>Quercus rubra</i>)	2,062
American Elm (<i>Ulmus americana</i>)	835
Douglas Fir (<i>Pseudotsuga mucronata</i>)	1,287
Siberian Larch (<i>Larix sibirica</i>)	2,530
Shagbark Hickory (<i>Carya ovata</i>)	897
	<hr/>
	47,107
<i>Cuttings:</i>	
Laurel Leaf Willow (<i>Salix pentandra</i>)	13,050
Golden Willow (<i>Salix vitellina</i>)	7,475
North-west Poplar (<i>Populus</i>)	17,475
	<hr/>
	38,000
<i>Ornamental Species:</i>	
Flowering Almond (<i>Prunus triloba</i>)	5
Red Elderberry	10
Cottonaster (<i>Acutifolia</i>)	32
Lilac (<i>Syringa japonica</i>)	186
Honeysuckle (<i>Lonicera ciliosa</i>)	25
Cedar (<i>Thuja occidentalis</i>)	54
Chinese Elm (<i>Ulmus pumila</i>)	45
Mountain Ash (<i>Pyrus americana</i>)	3
White Birch (<i>Betula populifolia</i>)	14
Native Hawthorn (<i>Crataegus</i>)	4
	<hr/>
	378
	<hr/>
	85,485

The following species and quantities were given out from Lethbridge in the spring of 1944:

<i>Transplants:</i>	
White Spruce (<i>Picea glauca</i>)	1,025
Lodgepole Pine (<i>Pinus murrayana</i>)	125
Green Ash (<i>Fraxinus pennsylvanica</i>)	510
Caragana (<i>Caragana</i>)	3,030
	<hr/>
	4,690
<i>Cuttings:</i>	
North-west Poplar (<i>Populus</i>)	200
	<hr/>
	4,890

RADIO BRANCH

Report of Radio Superintendent, A. E. Earnshaw

Shortly after the beginning of the fiscal year ending March 31st, 1945, all lookout towers were placed in operation. This work was completed, with one exception, before the end of April which is the earliest that all lookouts have been opened. In addition, during the summer season equipment was installed at a new lookout tower named the Puskwaskau Tower, which is situated in Section 8, Township 72, Range 23, West 5th Meridian. The equipment installed at this tower was one of the 30 watt transmitter receiver combinations and previously had been in use at Peace River.

During the early part of the year a completely new installation was made at the Peace River headquarters. A standard radio station building was completed on Lot 12, Peace River Settlement Survey in Peace River town, new masts were erected and a standard 100 watt transmitting unit was installed. The installation of this unit resulted in a marked increase in the communication efficiency in the Peace River area, and daily contacts with all portable units operating in the far north became possible. The installation of this equipment at Peace River later became of vital importance with the distribution of portable equipment to Game Guardians operating in the far northern parts of the Province.

Portable units were distributed to employees at Embarras Portage, Fort Fitzgerald, Little Red River, Keg River, and Upper Hay River. Those in the eastern part of the Province are contacted through the headquarters station at Lac La Biche and those in the western part of the Province are contacted through the headquarters station at Peace River. Fourteen new portable radio phones were purchased during the fiscal year and distributed to Forestry, Fish and Game personnel. The total equipment now in use is as follows:

Headquarters Stations	8
Lookout Stations	12
Portable Stations	89
Mobile Stations	15

The system of distributed maintenance mentioned in the 1943-44 annual report was successfully carried on during the year under review, and as the personnel concerned became more familiar with the equipment the repairs were carried out more expeditiously and efficiently. In addition, spare parts became more readily available which made maintenance work easier than it had been during the past few years. Despite the distribution of maintenance, however, the total miles travelled by radio personnel during the fiscal year of 1944-45 within the Province were as follows:

	Miles
Saddle Horse	510
Car	13,731
Train	5,426
Bus	320
Foot	72
Wagon	187
Plane	1,900
Total	22,146

A portion of the plane travel was flown on aerial reconnaissances on tower sites and the remainder in connection with the distribution of portable equipment in the northern areas of the Province. The Department is indebted to the North West Air Command of the R.C.A.F. for the use of their aircraft for this work.

Additional experimental work in the ultra high frequency spectrum was carried on, but such research work was considerably interrupted by the requirements of maintenance and administration.

It was a pleasure to find that a small number of field staff from the previous year were still available for employment during the year under review. This

made a marked increase in the efficiency of the detection and communication system at the start of the fire season. It is hoped that eventually we may maintain our detection and communication staff throughout the year so that the necessity of training new field staff every year is avoided. It would appear that the marked increase in the efficiency of the detection system owing to the presence of the experienced staff members is a sufficient indication that the detection staff should be retained throughout the year.

The following summary of operations of the Radio Branch shows for the time being that these operations have stabilized themselves. Considering the fact that some of the power plants and other equipment have been in operation for seven years, the maintenance costs for tower equipment are still extremely low.

LOOKOUT STATIONS—60 Watt and 100 Watt

Station	Engine Time	Gas, gals.	Oil, qts.	Messages	Words
Adams Creek	70/25//	16.25	1.00	208	3,637
Athabaska†	255/00//	19.88	6.50	217	3,711
Brazeau	260/48//	51.50	6.19	434	8,303
Buck Mountain	289/24//	71.25	7.50	1,041	17,303
Carrot Creek	250/02//	54.75	2.52	779	10,035
Goose Mountain	227/07//	65.50	3.50	259	5,825
Lovett	375/54//	100.75	21.12	1,645	23,456
Mayberne	363/37//	76.75	5.88	687	11,977
Sask. Mountain*	358/36//	46.00	4.00	385	6,134
Whitecourt	335/13//	79.00	7.75	944	20,250
Puskwaskau*	99/43//	17.00	1.00	102	3,505
Total	2885/49//	598.63	66.96	6,791	114,136

†10 Watt Station.

*30 Watt Station.

HEADQUARTERS STATIONS

Station	Engine Time	Gas, gals.	Oil, qts.	Messages	Words
Calgary				3,299	71,533
Edmonton				10,839	235,131
Edson				2,888	58,923
Grande Prairie				2,749	68,279
Lac La Biche	1155/47//	256	61.25	1,666	42,145
Peace River				1,696	48,169
Rocky Mountain House				863	17,387
Slave Lake	1081/20//	282	22.38	1,051	28,042
	2237/07//	538	83.63	25,051	569,609
Grand Total	5122/56//	1136.63	150.59	31,842	683,745

Before concluding this report, mentions should be made of the work done in consolidating weather information for the purpose of determining fire hazard. To date, fire hazard has been an estimated factor which varies considerably with human opinion. As all the factors governing fire hazard are measurable, an endeavour is being made to set up suitable fire danger indexes for the various parts of the Province. As a start on this work, all weather information gathered at the various lookout towers for the past six years was consolidated, and a master graph prepared from the consolidated and averaged figures from all the factors controlling fire hazard which were available. On the basis of these figures a tentative index was prepared and arrangements were made for gathering additional information on fuel moisture conditions by the distribution of suitable apparatus to all lookout points. It is hoped that the resulting standardization of the fire hazard figure will be of benefit to all Forestry personnel in connection with fire prevention and suppression. Probably, in addition to the daily dissemination of fire hazard information based on conditions at the time, an attempt can be made later to forecast fire hazard, using meteorological forecasts as a basis for the fire hazard forecast.

NORTHERN ALBERTA FOREST DISTRICT

Report of Chief Timber Inspector, F. W. Neilson

Fire Season:

The winter of 1943-1944 was comparatively mild with only slight snowfall over the whole district. As a consequence, the spring of 1944 opened with only slight reserves of moisture. This condition was particularly aggravated in the northern divisions of Slave Lake, Peace River, and Grande Prairie by reason of already sub-normal moisture reserves at the end of the preceding season.

The weather during April was quite warm, accompanied by high drying winds. The hazard rose sharply, and the period between the middle of April and May 10th was one of continued high fire hazard over the whole district. In the Edson, Carrot Creek, Westlock, Breton, Calling Lake, and Lac La Biche divisions rain and snow about May 10th reduced the hazard, and continuing heavy rains and showers brought it below normal. In the northern divisions of Peace River, Grande Prairie and Slave Lake, hot dry weather with high winds continued until the beginning of June, and there was no relief to any appreciable extent until rainfall at that time brought the hazard to normal.

During the summer there was sufficient rainfall over the northern divisions to keep the hazard either normal or slightly above normal. In the other divisions, however, heavy rainfall kept the hazard below normal.

During the autumn, the hazard remained relatively the same in the southern and northern divisions. Snowfall in the early part of November closed the season and brought the hazard to an end.

Fire Prevention:

Numerous fires, caused chiefly from the clearing of land by settlers, started about the middle of April over the whole district. We were able, however, to cope with these without great expense or loss of timber. The rains which started on May 10th over the southern divisions just came in time to relieve a situation that was rapidly becoming serious, and looked as if it might get out of hand. As previously stated, the northern divisions were not equally fortunate, and I regret to say that our losses in both merchantable timber and young growth were heavy.

Our greatest loss occurred in the area south of High Prairie in the Slave Lake Division. The original fire, which started from an old sawdust pile, was at one time thought to be under control, with little damage done. A few days of very high winds, however, fanned it again and swept it out of control across our fireguards, after which it merged with settlers' fires from the Sweat House Creek and Snipe Lake areas, also out of control, to form a large conflagration.

In the Peace River and Grande Prairie divisions the situation was also very critical for a time. However, in these areas we were fortunately able to secure the services of bulldozers on a number of the most serious outbreaks. This, together with reasonable accessibility to the areas threatened, assisted greatly in dealing with a very serious situation.

In the fighting of fires we have been handicapped by a man power shortage. Most of our fighters are taken from farms and sawmills. There is a natural reluctance amongst farmers, miles away from timber, to leave their spring work to fight fires at 15c per hour. There is just as much reluctance on the part of members of mill crews, many of them with families, to leave earnings of from \$3.50 and up to \$10.00 per day and board. In addition to the small wage paid, the situation is not helped by the known discomfort of a fire camp, or the additional wear and tear in shoes and clothing that is the lot of a fire fighter.

We have by a system of lookout towers and forestry radio solved to a large extent the problem of fire detection and communication. In so far as small equipment (shovels, axes, hand pumps and power pumps) is concerned, our position in the past few years has improved greatly. We completely lack bulldozers or other power equipment so necessary for road building, trail work and fire fighting. In this day of modern power equipment the idea of trying to build the type of trails now required for accessibility by the use of men equipped with axes is just about as obsolete as trying to haul logs with narrow sleighs and a pair of ponies.

Within the boundaries of the Northern Alberta Forest District, from which incidentally over 80% of all timber products produced in Alberta are cut, there still remain large areas of virgin timber, both mature and immature. If this timber is not destroyed there is no doubt that within the next ten years much of it will be cut and marketed, thus providing work and purchasing power for a great many Alberta people, in addition to a large direct revenue by way of royalties to the Province. There are even larger areas which it is quite possible may not be accessible for the cutting and marketing of timber for several decades.

The area I have particularly in mind can readily be seen by glancing at the map of the Province. Most of it is unsurveyed. Roughly speaking, it comprises that great space east of the British Columbia boundary bounded on the north by the Wapiti River, thence east following the south boundary of the subdivision survey to the intersection of the Athabaska and Lesser Slave Rivers. From that point south and west up the Athabaska River to the north line of Township 65, Range 3, West of the 5th Meridian, thence west to the west side of Range 7, West of the 5th Meridian, thence south to the north boundary of Township 63, thence west to the west side of Range 9, thence south to the Athabaska River, thence west up the Athabaska to the intersection of the McLeod and Athabaska Rivers, thence south-west up the McLeod to the point where it intersects the north boundary of Township 56, Range 13, West of the 5th Meridian, thence west along the north line of Township 56 to the British Columbia boundary.

Very little of this great area is suitable for agricultural purposes. It contains, in my opinion, the largest bodies of virgin timber remaining, both mature and immature, not only in the Northern Alberta Forest District, but also in the Province. For all practical protective purposes, most of this great area is inaccessible. It is true there are old Indian trails and the old Edson trail between Edson and Sturgeon Lake still exists. It is true the Dominion Forest Service cut many miles of pack trails in what was formerly the Lesser Slave Lake Forest Reserve. We have not had the funds, however, to hire trail crews as did the Dominion Forest Service, and in spite of the efforts of ranger staff, many miles of these trails are now entirely unusable.

Suppression:

To keep our timber resources in this area, we urgently need roads and trails. These improvements cannot be made overnight. They must first be planned, and then the machinery necessary to do the work obtained. It is hoped that when the war ends and heavy equipment is once more available, we may be able to obtain a number of bulldozers and get this work under way.

Personnel:

A number of changes have occurred in ranger personnel by resignations and otherwise. As a temporary measure, seasonal patrolmen were used in some districts with a view to filling the positions permanently at a later date with returned servicemen. In this connection, we are glad to welcome back to our ranks Ranger J. A. Magneison, who prior to enlisting with the R.C.A.F. in May, 1941, held the ranger position in District 29, Peace River Division. He received

his discharge from the R.C.A.F. in March, and immediately took over District 22, Grande Prairie Division, where we will have the benefit of his past experience to meet the new fire season which will commence shortly.

It is with deep regret that I mention the death, which occurred in October last, of Ranger Dave Harrington. Mr. Harrington, who had been in the Forest Service since 1931, was incapacitated most of the past season with a broken leg, received when working on a new bridge across the Sturgeon Creek on the trail to the Puskwaskau tower site. His last patrol, just after he returned to duty, was made to guide an American Search and Rescue party to a wrecked U.S.A. plane which had gone down with the loss of all its crew in the wild country between the Simonette and Little Smoky Rivers. Shortly after his return, he suffered a stroke, and a few days afterwards passed away in the Grande Prairie hospital. In his death the Forest Service has lost a faithful and loyal Ranger.

A number of ranger districts continue to be vacant. As previously stated, seasonal patrolmen were placed as a temporary measure in some districts. In others, no suitable person could be obtained. This meant, of course, that rangers in adjacent districts had to keep up as well as possible the bare essentials in two districts. In such cases, the work has been carried on loyally and to the best of the ability of all concerned.

The enforcement of the provisions of The Game Act continues to be an important part of a ranger's duties. Much of his time is necessarily taken up with trap lines. Boundaries and locations often form a knotty problem which the ranger must try to untangle. This will more readily be understood when it is realized that over an immense area covered by trap lines, there is no survey except the base lines running east and west, twenty-four miles apart. The hunting season, too, provides a number of problems, one of which is digging out ground fires left as a result of the careless hunter's camp-fire.

The duties of the inspection staff continue to be very heavy, so heavy indeed that it is now impossible to give the close attention we would like to many phases of forest administration. Much time must necessarily be spent in the supervision of rangers in connection with both The Game Act and The Act for the Prevention of Forest and Prairie Fires. Considerable additional correspondence is also entailed in connection with The Game Act. The lack in some districts of a ranger, in others the lack of experience, has also added considerably to the load. In addition, the number of timber operations and the volume of material produced has increased substantially.

By reason of the conditions outlined and looking to the future, I feel that serious consideration should be given to the idea of placing assistant inspectors in a number of divisions. The ability to estimate and map areas of timber is in itself a profession, requiring much training and experience. The ability to enforce the timber regulations or any other regulations with tact and decision is only acquired after training and experience. The ability to handle personnel is also not acquired overnight. If such positions were created and filled by young men of a suitable type, it would largely relieve the present over-loaded condition. It would also provide the Department of a pool of men trained in all phases of forest administration. Then if a vacancy occurred, instead of placing a half-trained man, who because of this is unsure and hesitant, a fully trained man would be available to take over and carry on without any disruption or loss of time.

As in the previous year, a ranger school attended by all field personnel as well as head office officials was held again at Westlock. Subjects discussed covered every aspect of forest and game administration. Opinions were freely expressed, and many problems, some local but many affecting the whole service, were dealt with. This school, or perhaps it might be called conference, so long as it is

carried on in the present spirit of tolerance with each member of the staff free to express his opinion without fear or favour, is, I believe, one of the finest institutions in our service. It is valuable as a meeting ground of opinion. It is possibly even more valuable because it fosters a spirit of understanding and unity together with that sense of loyalty so necessary in the composition of a good organization.

Improvements:

Improvements made during the season were limited. With the funds available and the shortage of staff, the time spent in fire-fighting and other duties, I consider a creditable showing was made. I might say that the new construction and other improvements listed hereunder were, unless specifically stated to the contrary, all made with ranger labour.

<i>Division</i>	<i>Improvements</i>
Breton	Auxiliary tower 40' high, pole construction, built at Alder Flats. Cement foundation built for cache which was moved from old location and placed on foundation. Forestry cabin at Alder Flats chinked and plastered. Underbrush cleared and burned and ground levelled around Forestry buildings at Alder Flats.
Edson-Carrot Creek	Two standard log cabins started the previous season, namely, Zita Creek and Rat Creek cabins, completed. Walls of standard cabin known as Coal Creek cabin, located in L.S. 9 of Sec. 29-53-11, W. 5th Mer., partially erected. Two new standard log cabins, namely, the Athabaska River Cabin, located one-half mile south of the old ferry crossing of the Athabaska River on the Edson-Grande Prairie trail and the Berland cabin on the same trail, north of the crossing on the Berland River. New ladder built on the Mayberne Tower and the tower legs creosoted one foot below and above ground level. Radio poles and stubs at Mayberne replaced by new ones.
Calling Lake	A standard log cabin, 14' x 16', on cement block foundation, known as Touchwood Cabin, constructed on S.E. ¼ 31-73-19, W. 4th Mer. Two miles new trail cut between the Wandering River and Wolf Creek. Twenty-three miles old trail maintained and brushed where necessary.
Westlock	Log cabin, known as Freeman Cabin, constructed on S.E. ¼ 25-64-10, W. 5th Mer. Log walls of standard cabin partially built at Fort Assiniboine. Whitecourt cache cleared of driftwood collected during spring flood of the Athabaska trail to Whitecourt tower maintained.
Slave Lake	A total of 714 man days were spent by ranger and lookout men in new construction, trail and telephone line work and other improvements. In addition, there were 61 man days by hired labour, all on trail work. West Prairie Cabin located at the intersection of the northern boundary and west prairie trails at Mile 52, log construction with lumber floor and shingle roof, complete excepting windows and doors. Carrot Creek Cabin to be located in approximately Sec. 15, Twp. 68, Rge. 18, West of the 5th Mer., unsurveyed, or Mile 22, on Freeman Extension trail. The logs are cut for this cabin and lumber for the roof and floor has been hauled to within nine miles of the site. Log barn at Wabasca on Sec. 31, Twp. 80, Rge. 25, West of the 4th Mer.; walls of this building, 16' x 18', were erected and in addition a small tool cache was also built. New roof on Forestry cabin at Wabasca. Logs cut and walls of a barn, 16' x 18', erected at Wabasca. Tool cache built of logs erected at Wabasca. Swan River Ranger House located on Sec. 29, Twp. 71, Rge. 8, West of the 5th, a concrete foundation 24' x 26' was built and 46 building logs were cut and hauled to the site. We have had no appropriation for this, but the old building is in a very poor state of repair and should be replaced. This can be done by ranger labour if we have funds for material. Frame Granary at the Swan River Station constructed from lumber salvaged from old camp buildings. Ten new bridges over small creeks were constructed on the Holmes, Otawau, Grizzly, East Prairie, and Chalmers Trails. Over 200 miles of trail and 39 miles of wagon trail were maintained and brushed out where necessary. A telephone system of 120 miles was maintained and brushed out where necessary.
Lac La Biche	Six miles of trail to the proposed Heart Lake Tower site, which had become filled in with windfall, was cleared and re-opened.

With the completion of construction and placing in operation of the Pusk-waskau Tower, there is now a total of twelve towers serving the N.A.F.D. Eight of these are equipped with radio communication and four with telephones. Our

tower system is giving excellent service, but to have the coverage required in so vast an area future projects must necessarily include the erection of more towers.

The names and locations of towers now in use in the N.A.F.D. are as follows:

Name of Tower	Location	Division	Type of Communication
Buck Mountain	S.W. $\frac{1}{4}$ 13-47-6 W. 5th Mer.	Breton	Radio
Brazeau	S.E. $\frac{1}{4}$ 7-47-10 W. 5th Mer.	Carrot Creek	Radio
Carrot Creek	S.W. $\frac{1}{4}$ 33-51-13 W. 5th Mer.	Carrot Creek	Radio
Mayberne	Sec. 30-56-18 W. 5th Mer.	Edson	Radio
Whitecourt	Sec. 21-58-12 W. 5th Mer.	Westlock	Radio
Puskaskau	Sec. 8-72-23 W. 5th Mer.	Grande Prairie	Radio
Saskatoon Mountain	Sec. 15-72-9 W. 6th Mer.	Grande Prairie	Radio
Goose	Sec. 33-66-14 W. 5th Mer.	Slave Lake	Radio
Martin	Sec. 1-75-6 W. 5th Mer.	Slave Lake	Telephone
Flat Top	Sec. 14-71-6 W. 5th Mer.	Slave Lake	Telephone
Deer Mountain	S.W. $\frac{1}{4}$ 28-68-8 W. 5th Mer.	Slave Lake	Telephone
House Mountain	Sec. 9-70-11 W. 5th Mer.	Slave Lake	Telephone

CROWSNEST-BOW RIVER FOREST RESERVE

Report of the Forest Superintendent, J. P. Alexander

FOREST PROTECTION

The staff of the Crowsnest-Bow River Forest was maintained throughout the year at the same numerical strength as in former years. A few changes were made in the field staff on account of resignations and enlistments, but there was less necessity for new appointments and transfers than there has been during the past war years.

(a) Fire Season:

Spring was rather late in arriving after a very mild, open winter. Early spring precipitation was fairly plentiful, but little moisture was received during April and the first half of May, and a bad fire hazard developed at this time.

After the spring rains started, precipitation was quite heavy on the Bow River Division of the forest up until late in August, while on the Crowsnest Division the weather remained warm and dry. On both divisions the fall weather was unusually dry, and a serious fire hazard existed.

The winter weather was mild with little snow in the southern part of the Province.

(b) Fire Prevention:

Prevention activities are only applicable to fires originating through human agencies, and consist of education of the public by various means of publicity. Fires resulting from natural causes cannot be prevented, and must, therefore, be suppressed.

The most effective form of publicity is by direct contact between our field staff and persons using the reserves for either pleasure or business. This contact is brought about as a result of our requirement that all travellers or campers on the reserve take out a free travel permit or, in case of the ranger's absence from his station, to fill out a registration blank. This requirement has been in effect for many years, and has resulted in our rangers knowing who is in the forest and where they are. These contacts give our rangers a chance to warn the public regarding the danger of starting fires and the steps to be taken to prevent them. Travel on the reserve during the summer and fall was heavier than for the same period last season.

(c) Fire Detection:

Our methods of fire detection during the past season remained the same as in former years, and depended on the lookout system and ranger patrols. As

the later summer and fall were unusually dry, the lookouts were continually manned during those months. Many of our smaller fires are detected by the rangers while on patrol, or are reported to them by the public before these fires are large enough to be sighted from the lookouts.

Suppression:

A total of 29 fires occurred during the season. Of these 20 were extinguished without any cost to the Government except for ranger labour. Out of these 20 fires, 7 were railway fires and were handled by section crews, 3 were caused by lumbering operations and the costs of suppression were borne by the companies involved, and the other 10 were extinguished by our staff. On 9 fires outside help had to be employed. Fortunately, these fires occurred where help could be secured from sawmill crews, ranchers, farmers and Indians.

The total cost of fire suppression for the 1944-45 season was \$2,857.86 in cash expenditure and \$731.75 in ranger labour. The acreage burned over was 4,079½ acres with a total timber loss valued at \$14,827.75.

Personnel:

At the start of the season the staff was at the same numerical strength as in former years. Due to resignations and enlistments the following changes in staff were made:

Castlemount District.—Assistant Ranger W. Liddell was called up for military training, and his place was taken by Floyd Smith, former assistant ranger on the Crowlodge District.

Crowlodge District.—Assistant Ranger Floyd Smith was transferred to the Castlemount District, and his position was filled by the appointment of Harold Gordon.

Kananaskis District.—Assistant Ranger H. Holgate resigned in the fall of 1943, and in the spring of 1944 Bruce Grant, former patrolman on this district, was appointed to the position. To fill the patrolman's position, W. Wallator was promoted from the position of lookout man on the Black Rock Lookout.

Fire-Fighting Equipment:

The supply of fire-fighting equipment on this forest is sufficient for our needs, and no new equipment for fire fighting purposes was purchased during the year. A considerable amount of repair parts for existing equipment was purchased.

Forest Administration:

Forest administration has to do with timber disposal, grazing and various other uses on the forest, such as fenced pastures, drift fences, oil well drilling sites, trappers' cabins, etc.

Timber.—The demand for sawn lumber was still great, but the demand for mine timber slackened considerably as the mining companies seemed to be pretty well stocked up with this class of material.

Twenty-six timber sales were in effect, but of these three were not operating. The revenue collected from these sales was \$29,176.63, and the timber cut was as follows:

Sawlogs	8,638,316 ft. B.M.
Mine timber	761,038 lin. ft.
Lagging	362,904
Fence rails	3,638
Fence posts	1,083
Laths	14,000
Fuelwood	936 cords

During the year 685 timber permits were issued, bringing in a revenue of \$1,837.13, and on which the following material was cut:

Green sawlogs	9,200 ft. B.M.
Dry sawlogs	75,000 ft. B.M.
Mine props, under 9" butt	115,000
Mine lagging	17,000 lin. ft.
Fence rails	15,158
Fence posts	12,898
Fuelwood	1,557 cords
Building logs, under 9" butt	9,946 lin. ft.
Building logs, over 9" butt	2,686 lin. ft.
Telephone poles	2,940
Piling, 9" and over	1,538 lin. ft.
Cribbing	2,880 lin. ft.
Fence droppers	3,600
Roof poles	15
Tramway ties, 5" face	1,000

Hay.—Only one haying permit was issued during the season, covering 20 tons of hay and producing a revenue of \$6.00.

Grazing.—Grazing conditions on this reserve during the past season were fairly good, especially in the Bow River Division, where moisture was quite plentiful during the late spring and early summer. Lack of precipitation in the Crowsnest Division throughout the entire season resulted in a short forage growth, and very little forage was left at the end of the grazing season. Stock entered the forest following a mild, open winter in good condition, and at the end of the grazing season most of them were quite fat. The demand for forest reserve grazing was heavy, and most ranges were stocked to capacity. In some districts more applications were received than could be accepted. A total of 298 Grazing Permits were issued covering 21,651 cattle, 1,809 horses, and 5,534 sheep, and produced a revenue of \$18,280.19.

Losses of stock during the season from disease, poison weeds and predators, etc., were light. The greater part of the losses was due to predators, and this was especially true in the southern end of the reserve. Actual known losses of cattle and horses were 62 head. Losses of sheep were heavy, but the exact number is not known, as the sheep were removed from the reserve before a count could be obtained. The heavy loss of sheep was attributed to inexperienced herders.

Uses.—One hundred and thirty-seven Miscellaneous and Grazing Use Permits were in effect during the season, producing a revenue of \$798.84. These permits covered roads, sawmill sites, drift fences, corrals, trappers' cabins, fenced pastures, oil well drilling sites, etc.

Improvements:

Improvement work was carried on throughout the season, but the extremely dry weather of the latter half of the summer and fall curtailed this work to a certain extent, as rangers and lookout men during that period had to remain in the vicinity of their headquarters in order to receive word of, and take action on, any fires that might occur.

Improvements—New Construction:

A number of new improvement projects were worked on during the year. Some of these were completed, while others were only partially completed. Projects completed were the Castlemount Ranger Station Garage, the Lynx Creek Cabin, new corrals at the Aura and Canmore Ranger Stations, and a camp shelter at mile $3\frac{1}{4}$ on the Elbow Road. Partly completed projects were the Elbow Ranger Station Garage, the Coleman Ranger Station House, the East Porcupine Ranger Station Garage, Spray Lakes Cabin, and a new camp shelter at the Upper Spray Lakes. A trail was also partly cut out up Canyon Creek in the Bighorn District of the Bow River Division of the

Forest. There were 375 man-days spent on new construction work, and \$1,634.13 was spent on the projects in wages.

Improvements—Maintenance:

All of our existing improvements such as houses, cabins, telephone lines, roads, trails, fences, etc., were maintained in a fairly satisfactory state. Practically all of this work was carried out by our own staff except in the Castlemount District, where extra help was employed in cleaning out approximately 45 miles of trail that runs through old burn and where the windfall was exceptionally heavy. Our road building machinery was used extensively in repairing and altering roads in the Castlemount District and to a lesser extent in the Crowlodge District. A total of 2,710 man-days in ranger labour were utilized on maintenance work at a cost in wages of \$12,305.99.

STATEMENT OF REVENUE COLLECTED

Timber Sales	\$ 29,176.63
Timber Permits	1,837.13
Grazing Permits	18,280.19
Hay Permits	6.00
Maps	33.55
Fishing	410.75
Grazing Uses	374.12
Miscellaneous Uses	424.72
Sundry	60.00
	<u>\$ 50,603.09</u>

The mileage travelled by the entire staff in the course of their duties during the season are listed below:

	Miles
By car	102,922
By saddle horse	40,567
By team	3,822
By train	2,581
By boat	22
On foot	4,111
Total	<u>154,025</u>

CLEARWATER FOREST RESERVE

Report of Acting Forest Superintendent, J. R. H. Hall

Fire Season:

The winter of 1943-44 was fairly warm except for short periods of cold weather in February and March, and snowfall was light. There was very little snow on the forest floor at any time from December until the end of March, and it was entirely clear of snow early in April.

Spring rains started early in the season, and there was an abundance of moisture from April to the end of September. There was very little precipitation during October, and a very light snow storm in November. A snowfall of two to four inches on November 23rd brought the fire season to an end.

No bad fires occurred during the season, and at no time was the fire hazard high. Early in May the hazard was fairly high in the Bergen District, that is in Township 31, Range 6, West of the 5th Meridian, but this condition held only for a short period. In November the fire hazard increased until the 23rd, when the snow fell. However, the hazard was not high.

Weather Conditions During the Winter of 1944-45:

There was very little snow on the forest floor in December and January and the temperature was moderate. There were several snow storms during this period, but warm weather between storms kept the forest floor almost clear of snow,

except on north slopes. During February and March a large amount of snow fell. Warm weather between storms prevented snow from reaching any great depth. However, in spite of this at the end of March there was an average of six to twelve inches of snow on the ground. In parts of the Ram District there were twenty inches, in Nordegg fourteen inches, and in the Bighorn District thirty inches of snow. This is the heaviest snowfall of the past five winters on the Clearwater Forest.

Fire Detection and Suppression:

Very little time was spent by rangers on fire patrol or suppression.

Six fires were fought and extinguished in the Clearwater Forest and nine fires in the adjacent area.

Fire-Fighting Equipment:

Our equipment is in good shape, and some worn-out articles are being replaced each season. However, we are greatly in need of a garage and storage space so that the equipment we have at headquarters can be properly taken care of.

Forest Administration:

Conditions for the burning of brush on timber sales have not been favourable for several years. During February and March of this year we had more than normal snowfall and the snow stayed for a few days after each storm. During this period operators in the Sundre District were able to clean up brush from their logging areas.

The number of timber permits issued does not show any material increase over last year.

Timber operations in Districts Nos. 1 and 2 are much the same as last year. Five timber sales were disposed of this year and four were closed out.

USES

Oils Wells:

The Shunda Oil Company commenced drilling operations at their well four miles east of Nordegg on the Nordegg-Rocky Mountain House Highway. This is a small outfit, and they are not making much progress.

The Home Oil Company completed a new road from their old well site on Chungo Creek to Brown Creek, a distance of seven miles, and rebuilt their road from Chungo to Nordegg. A new well known as Brazeau Syndicate No. 1 is being drilled about a quarter of a mile east of the abandoned Home Oil (Brazeau) well.

The Imperial Oil Company have constructed a road from the Nordegg-Rocky Mountain House Highway near Harlech to Imperial-Stolberg Well No. 1 on Section 22-41-14, W. 5th Mer. A camp has been built and drilling started.

The Brazeau Oils have equipment on the ground and expect to spud in a well on L.S.D. 5 of Section 9-41-15, W. 5th Mer., as soon as there is a supply of water in the small creek which flows through their camp and well site.

The Ram River Oils are continuing drilling at their No. 3 well on Section 2-37-1, W. 5th Mer., and have equipment on the ground to start drilling Well No. 4 on the N.W. $\frac{1}{4}$ of Sec. 36-34-10, W. 5th Mer.

The Heiland Exploration Company had several seismograph survey parties in the field. They ran lines for the Home-Shell in the Nordegg area; Imperial in the Harlech area and Shell in the Prairie Creek district. They also ran lines near the James River Cabin and south of the Red Deer River.

It is not known what oil company had the work done in the last two places mentioned, as no permit was applied for.

Grazing:

There was little increase in grazing. Three new permittees on the Lower Red Deer Division moved their cattle after two weeks' grazing, as some were bloated from eating poison weeds.

Bear killed approximately ten head of cattle on the Upper Red Deer Division. The animals responsible for the killing were shot or trapped.

Game:

Early in the spring one colony of beaver was trapped from a dam on the farm of Geo. Lewis on the northwest quarter of Section 26-37-6, W. 5th Mer. Five male animals were trapped and pelted. The five females in the colony left the dams as soon as trapping commenced and the house was cut into. They travelled overland down the small creek to the Clearwater River, and two of them went into the Saskatchewan River.

Beaver were live trapped on four farms where the animals were causing damage, and they were released in the area west of the North Saskatchewan River. Four beaver were trapped from a creek which was flooding the Town of Sundre. These animals were liberated in a small lake near Prairie Creek on Section 11-38-9, West of the 5th Mer.

Seven beaver were trapped and shot on the north-east quarter of Section 6-39-5, W. 5th Mer., where they had dammed the Horseguard Creek and flooded farm lands.

Rangers spent 610 days on game patrol and beaver work.

Improvements:

Rangers spent 1,515½ days on improvement work. Practically all trails were cleared of windfalls, and some bridges and culverts were re-built or repaired. All telephone lines were overhauled and put in first-class condition. Work was started on new 14'×16' cabins at Idlewild and Bighorn. These are to be constructed of logs on cement foundations with asphalt shingles on roof. The Bighorn cabin is almost complete, and five rounds of logs have been put up at the Idlewild. A cement foundation was put under the assistant ranger's cabin at Shunda, and floor joists, bottom logs and porch floor were replaced. The walls of a new cabin at Holbrook were put up, the roof put on and the floor laid. The log walls of the Meadows Storehouse were built. The work of plastering the buildings, whitewashing walls and painting shingles was started at Red Deer, Clearwater, and Shunda Ranger Stations.

Heavy rains last summer turned meadows into bog holes and enlarged soft spots on trails, necessitating the cutting of new trails, building of additional bridges and corduroy, and ditching and grading.

Personnel:

Assistant Ranger Lundin, who was on District No. 2, resigned to join the merchant marine.

Assistant Ranger Metzler, who was on District No. 1, resigned early last fall.

Assistant Ranger Torpe of the Ram District resigned on February 28th.

Assistant Ranger Petersen of Brazeau West District resigned at the end of October.

Assistant Ranger H. G. Birney was dismissed from the service on November 30th.

Recreation:

A large number of people travelled in the reserve for fishing and hunting purposes. Reserve personnel sold 159 season fishing permits, and 4 three-day fishing permits were issued. During the season 558 travelling permits were issued. The free permits covered approximately 1,584 persons.

BRAZEAU-ATHABASKA FOREST RESERVE

Report of Acting Forest Superintendent, D. Buck

Before writing in detail the activities carried on within the Brazeau-Athabaska Forest Reserve, I would like to review the general situation briefly.

All rangers and assistant rangers are now employed on a year-round basis, of whom thirteen are on the permanent list while the remainder are on the temporary. The schedule of salary increases has been adopted and the field staff are receiving them when earned.

The number of timber sales, miscellaneous use permits and forest protection activities in general have increased considerably during the past two years. This is, no doubt, on account of war requirements demanding an increase of coal and forest products of all kinds. This increase, together with the registration of trapping areas in the Northern Alberta Forest Districts Nos. 7, 8 and 23 for which this office is responsible, places a larger burden of work on the office staff. Since the resignation of Timber Inspector Morden and the appointment of Inspector Noble to take his place, the headquarters of the Carrot Creek Division has been moved to the Brazeau-Athabaska office to relieve the inspector of his stenographic problems and other details. However, there is considerably more counter work in connection with the Edson Timber Inspection Division than is revealed in any of the usual reports. This additional work is as it should be to render service to the public whenever possible, but I am pointing this additional work out in order that the office staff will receive due credit. A great number of monthly returns, timber permit applications, etc., are dealt with at the counter.

A change has recently been made in the radio personnel at this office. Mr. Don Riggan resigned to establish a business of his own at Edson, and the vacancy has been filled by the appointment of Mr. P. Donnelly. I feel sure we will receive the same co-operation that was received from Mr. Riggan. Mr. Donnelly has the advantage of having been an assistant ranger on the Athabaska Reserve, therefore he assumes his new duties here knowing several of the rangers personally, a large portion of the reserve and, what is more important, the connections that can be made to deliver radio messages.

Personnel:

The promotion of Rangers Watt and Chapman at the commencement of last season has been justified, although prior to their promotions each man had only one year as assistant ranger. The three assistant rangers appointed last spring have resigned—Lund on the Coalspur District resigned after six weeks, Lewis who was appointed to the Muskeg District, and Anderson to the Mountain Park District remained to finish the fire season. R. E. Wright was later appointed to fill the assistant vacancy at Coalspur, and has recently been transferred to the Athabaska Reserve as assistant on the Muskeg District.

The 1945-1946 season opens with three ranger positions to fill. Two of these vacancies were caused by the resignations of J. Glen and A. H. Hammer, both with long and creditable records in the service. Mr. Glen resigned from the

senior ranger position at Entrance to go fruit farming in British Columbia, and Mr. Hammer felt it his duty to carry on the family farm at Calmar, Alberta, following the recent death of his brother. Ranger Larson was transferred to an important district in the Clearwater Reserve. The senior ranger position on the Athabaska Reserve, with headquarters at Entrance, is most important, being the key position for the whole of the reserve, as all personnel must come to this point for their supplies, equipment and to some extent their instructions. Ranger W. L. Richardson has been selected to take this position, moving from the Leyland District in the Brazeau Reserve, where he has proven to be most capable and co-operative as senior ranger on that reserve.

Pending the discharge of Senior Ranger Waikle from the Canadian Army, his position at Entrance has been transferred to Leyland, which position has been filled temporarily by Ranger H. W. Parnall, who moved from the Lovett District, while Assistant Ranger Dino takes charge of the Lovett District with the assistance of a patrolman, Mr. S. Jensen having been appointed.

The ranger vacancy caused by the resignation of A. H. Hammer on the McLeod District, was advertised through the service, and Mr. A. Fraser was selected from the applicants. He has served a number of years as assistant ranger on the Clearwater Reserve, and I have no doubt will prove worthy of promotion.

Ranger Watt will take charge of both the Sulphur and Smoky Districts with the help of an assistant instead of a ranger appointment in the place of Larson, who, as stated above, has been transferred to the Clearwater Reserve. Mr. A. R. Haight, who recently returned from overseas, is now assistant to Ranger Watt.

Lookouts and Personnel:

The Brazeau-Athabaska Forest Reserve has six permanent lookout stations. Three are on the Athabaska as follows: Adams Creek, which is radio equipped, with no telephone communication; Athabaska Lookout with both radio and telephone communication; and Moberly Creek Lookout, which is equipped with telephone communication but which has not been manned since 1942, or since the construction of Adams Creek Lookout. However, it may be considered necessary to re-open this lookout station since the awarding of Timber Sales Nos. 366 and 372 to Messrs. Etter and McDougall, as it is the only lookout which has direct observation over this timber.

On the Brazeau Reserve, the three lookout stations are in telephone communication with each other and all rangers, and in addition Lovett Lookout is radio equipped. Since all rangers are now equipped with an S.P.F. radio set, this office is constantly in touch with them, either directly through the Edson radio, or indirectly through the radio equipped lookout stations which conduct the daily schedules with them.

The following list shows mileage and methods of travel by the field personnel in the course of their duties for the year ending March 31st, 1945:

	Miles
Automobile	25,384
Saddle	16,492
Railway	12,623
Foot	10,366
Speeder	5,460
Team	1,623
Dog Team	434
Motor Cycle	186
	<hr/> 72,568

The above mileage was travelled by the following personnel. It should be mentioned, however, that two assistant positions were vacant for ten months and one for five months: one Acting Forest Superintendent, two Senior Rangers; eleven District Rangers, six Assistant Rangers.

The office staff consists of one Forest Clerk, one Assistant Forest Clerk, and one Radio Operator, who is in charge of radio communications and assists with the general office work, especially property records.

Fires:

The fire losses for the calendar year ending December 31st, 1944, were negligible. The annual summary of fire losses shows a total of ten fires.

The Athabaska Reserve summary shows two Class "A" and one Class "B" fires with no loss of timber. The Brazeau Reserve summary shows two Class "A" and five Class "B" fires with an estimated loss of timber to the value of \$33.75. However, two of these show large property losses. I refer to the Lakeside Collieries and the Coal Valley Mining Company fires, in both cases the tipples and power-houses having been destroyed.

The weather was the ruling factor in this success, together with the splendid co-operation of all concerned. A brief spell of high fire hazard occurred during May, which was terminated by a very heavy fall of snow, followed during the month of June by a recorded twelve inches of rainfall as shown by the records at Edson. This excessive precipitation caused serious floods and washouts, which stopped traffic on the main line of the Canadian National Railway line west of Edmonton for ten days, and did severe damage to farm land in the McLeod Valley north of Peers.

In the Forest Reserves several small bridges were lost by flood, and in places severe damage of trails occurred.

This excessively wet weather continued to a lesser degree throughout the summer and fall, having the effect of bringing to life springs which have not been active for years. A very mild winter was experienced with an early snow-fall last October, followed by moderate temperatures. Last March the indications were for an early spring, but the mild weather which then prevailed turned cold and wet which reversed the early prospects, and the spring turned out to be one of the latest on record, with heavy snowdrifts in the bush as late as May 15th.

IMPROVEMENTS—BRAZEAU FOREST

New Construction:

Several new construction projects were undertaken, principally buildings, as it had become apparent that there was insufficient space for the proper care of equipment. As assistant rangers are now employed on an annual basis, it was necessary to provide a building at Leyland for the assistant at that point.

It was decided to construct a combination blacksmith shop and cache at Leyland and turn the present cache into a cabin for the assistant. This has been done, and the building, which is 20'×22', built on a cement foundation of lumber construction throughout, has been completed with the exception of siding and paint. Since the high winds of last winter at Leyland, it has been recommended by the ranger that the interior should be sheeted diagonally, a contingency which was not provided for in the estimate.

A combination cache, garage and work-shop at the Lovett Ranger Headquarters is well advanced. This building is of log wall construction, lumber floor, partitions, roof, etc., and asphalt shingle roofing. The equipment at Lovett is at present kept in the loft of the barn, which is not satisfactory. When this building is completed, room will be provided for equipment also.

A cabin has been completed at Mile 50, Bighorn Trail. This cabin replaces the old cache at Mile 51½, which was useless as a stop-over cabin and beyond repair. In fact, for a number of years the forestry equipment at that point has been stored in a nearby trapper's cabin. This new building was commenced

during the winter of 1943-44, and was completed last summer and listed as the Red Cap Cabin. It is of standard construction, situated on the north bank of the Cardinal River and faces Red Cap Mountain.

Kaywood Cabin.—For several years the Forestry Branch had claimed the abandoned office of the Kaywood camp. This building was of lumber construction, but had fallen into disrepair, and its location was not entirely satisfactory. The lumber was salvaged and the cabin rebuilt at the mouth of Wampus Creek in the vicinity of Mr. R. A. Craig's Timber Sales.

Coalspur Ice House.—A small wellbuilt building has been erected at the Coalspur Ranger Headquarters in order to hold a small quantity of ice. This will also serve as a refrigerator during the summer months.

New Construction.

Trails.—Three trails came under this heading, the Drinnan Creek, the Warden Creek, and the Anderson Creek trails.

The Drinnan Creek Trail follows up the creek of this name and was an old hunting trail. Some work was done on it to make it fit for travel.

The Warden Creek Trail was originally cut by the Jasper Park employees before the Park boundary was changed. No work had been done on it since, and the telephone line along the trail was a menace to big game and also to the occasional person travelling thereon. Most of the telephone line was removed, and ten miles of the twenty-one were cleared.

The Anderson Creek Trail also follows the creek of this name. It was necessary to do some work on a trapper's trail in order to reach and inspect the timber applied for by Mr. George E. Boake, now Timber Sale No. 364. It is hoped, when time and conditions will permit, to improve this trail which connects with the McLeod River Trail.

Telephones.—A spur telephone line was commenced last summer, branching from Mile 55, Bighorn telephone line, to connect with Grave Flats Lookout, three miles distant.

When this spur line is completed the grounded line between Mountain Park and Lovett will be cut at Grave Flats Cabin. The line from the west will dead-end at this point while the east line will connect with the present Grave Flats Lookout line. This will break the circle which now exists, roughly half of which is metallic and the other half grounded circuit.

Other minor new construction projects are the Pembina Forks pasture fence, Mountain Park administration site fence and Leyland corral.

IMPROVEMENTS—ATHABASKA

New Construction:

Canyon Creek Cabin.—This project was commenced in the year 1943-44, and details are recorded in the annual improvement report covering that year. It is now completed, and contains the usual amount of fire-fighting equipment which is kept at these cabins.

Entrance Implement Shed.—This building was also commenced the previous season and is not yet completed, as it was intended as a project for rangers in from their districts to work on while at Entrance. However, the log work is completed. It is expected that the project will be completed this year, and then the larger equipment at Entrance can be placed under cover.

Muskeg Cache.—Logs were cut for a cache several years ago, and although it is not yet completed, a start has been made on construction.

Rock Lake Cache.—Since the construction of a pasture at Rock Lake Cabin and the prospects of timber operations on Timber Sales Nos. 366 and 372 in the vicinity, it has been decided to move the fly shed constructed in 1941 to this cabin site and complete as a cache for the storage of more equipment at this point. The proposal is to transfer a gasoline pump engine and necessary hose, which are now stored at Grave Flats.

Trails:

Hay River Trail.—Since the high water of last season this trail, which commences at Hay River Cabin and continues north east following the Hay River, has been badly washed out in several places, making it impossible to travel during high water. Several detours have been cut, but they are not satisfactory. A reconnaissance was made for a trail site entirely away from the river valley. The location found being favourable, a start was made on this proposed trail, but a small crew is really needed for such an undertaking.

Donald Flats Lookout Trail.—More work was done on this trail last winter by widening it out and cutting corduroy.

Other minor projects were the Moberly Creek Cabin fence, Rock Lake pasture fence, and Rock Lake corral.

MAINTENANCE—BRAZEAU-ATHABASKA

Details of man-days work done, etc., on Maintenance projects are contained in the summary of Form 106 and in the Improvement Report.

For the Athabaska Reserve, 800 days were spent on maintenance out of a total of 2,368½ work days. The Brazeau Reserve Form 106 shows 747½ days were spent on maintenance out of a total of 2,704½ work days, which is 33½% of the total work days spent on maintenance of projects on the Athabaska Reserve and 27½% on the Brazeau, but when time spent on new construction is added the percentage of man-days is practically the same, roughly 48%.

It cannot be stated that improvements are being maintained at their proper standard, as this is impossible without added assistance, but a distinct improvement in all phases of the work is showing since all personnel have been placed on a year-round basis.

If a bulldozer was available for a short time during the summer, much-needed work could be done, but without this equipment it is not feasible. Particular reference is made to the Lower Wagon Road. We have been fortunate enough in securing the loan of the forestry bulldozer for two short periods in the past and a dry weather road was graded to Moberly Cabin, but beyond this point the road is hardly passable for wagons since the excessive rainfall last summer washed it out at several points. There are numerous stumps in the road between Miles 22 and 42 which could be quickly removed by a bulldozer, but are not readily removable by pulling with teams as the pine trees were cut at ground level.

This road is the main artery of the Athabaska Reserve, and is used continually by wagons, pack outfits and automobiles. Therefore, power equipment should be utilized to bring it to a higher standard.

Adams Creek Cabin and Grande Cache Cabin.—These cabins were not completed, due chiefly to the impassability of the roads last summer, also to the continuous high water in the Berland River, which conditions precluded the possibility of the required material being hauled to the sites.

FOREST MANAGEMENT

The records for the year ending March 31st, 1945, show a total revenue collected under the different timber headings of \$46,487.90.

SALES:		
Application deposits	\$	925.00
Guarantee deposits		6,157.00
Dues and fees		37,348.00
		<u>\$ 44,430.90</u>
PERMITS:		
Dues-Fees	\$	1,501.25
Seizures		555.75
		<u>2,057.00</u>
		<u>\$ 46,487.90</u>

This shows an increase in revenue from this source over the preceding year of \$12,283.80. An increase of \$12,139.67 from timber sales is shown, and an increase of \$144.13 from permits and seizures.

The following is a list of material manufactured from timber sales within the Brazeau-Athabaska Reserves during the fiscal year ending March 31st, 1945:

Number of active Timber Sales	34
Lumber, ft. B.M.	11,725,104
Railway ties, pieces	155,901
Tramway ties, 5 ft., lin. ft.	70
Mine timbers (green and dry), lin. ft.	470,009
Building logs, lin. ft.	2,560
Lagging cords	1,901

The following products were cut under the permits issued, which numbered 16:

6 Permits, building logs, lin. ft.	3,092
1 Permit (fringe), lumber, ft. B.M.	75,000
1 Permit (renewal), ties, pieces	2,000
5 Permits (fuelwood), green and dry, cords	73
1 Permit, fence posts, pieces	200
1 Permit, mine timbers, dry, lin. ft.	179,600
1 Permit, seizure, mine timbers, dry, lin. ft.	222,303

It is possible that the peak in the number of timber sales has been reached, but it appears likely that the demand for forest products will remain high on the required list for some time, and indications at present are that the number of sales will decrease, but the revenue derived from this source will remain close to this year's figures derived from larger operations which are getting under way and will remain active for some years.

The Spruce operations are being conducted in mature and over-mature stands. Trees are being utilized on Timber Sales Nos. 294 and 333 which are over two hundred and fifty years old, also a large quantity of over-mature Balsam is being cut on Timber Sale No. 294. The lumber produced is a low grade, but under present conditions can be produced at a profit and disposed of without difficulty.

Owing to an unfortunate accident on Timber Sale No. 333, when the mill burnt to the ground in January, the production from this Sale was perhaps one-third of the expected output.

The tie operations are being conducted generally in immature Pine, with the exception of Timber Sales Nos. 319 and 309 where the Pine is mature.

The average age of the Lodgepole Pine on the other tie Sales would perhaps average seventy-five years, and is excellent timber. However, not over twenty-five per cent of the Pine is being cut and is classed as a thinning operation, as a minimum stump diameter of eleven inches measured eighteen inches from the ground is placed on this class of timber, and is strictly adhered to.

A marked improvement in the growth of the remaining timber has been noticed in stands which have been thinned for a few years.

MISCELLANEOUS USES—PERMITS

A total of 95 general permits was issued during the year ending March 31st, 1945, covering a variety of projects, as follows:

Oil well sites	3	Fenced pasture	2
Trappers' cabins (covering 72 cabins)....	38	Prospector's cabins	2
Telephones	2	Surface rights	9
Hunting lodge	1	Power lines	6
Fisherman's cabin	1	Mill sites	2
Boat house	1	Storage yards	3
Roads	15	Dam sites	2
Cultivation	2	School	1
Drift fence	1	Gas storage tank	1
Stockman's cabin	1	Dump ground	1

A total of \$1,245.24 has been collected under this heading during the year, of which \$309.60 was credited through head office.

This again is an increase in the number of permits issued and also a large increase in revenue, due principally to the payment now required before a permit may issue on oil well sites, strip mines and dump grounds.

During the year there were three strip mines opened up, two by the Cadomin Coal Company, Limited, and one by the Luscar Coals, Limited.

The Imperial Oil Company, Limited, are drilling in the vicinity of Coalspur, and are continuing the work after having passed the 12,000 ft. mark. A very heavy flow of gas has been encountered.

The Anglo-Canadian Oil Company, Limited, site on Section 19, Township 49, Range 26, West of the 5th Meridian, have discontinued operations, and the equipment has been dismantled and moved away.

The operations of the Shell Oil Company, Limited, on Section 17, Township 51, Range 27, West of the 5th Meridian, have been discontinued, but the equipment and derrick remain at the site.

TRAPPING

The fifty-eight registered trapping areas within the Reserves have been established for a number of years, and apart from the occasional change of ownership for various reasons, this work proceeds smoothly; usually the renewal fees are paid to the rangers within whose districts the particular areas lie, and who forward the trapping fees together with renewal cabin fees, if any, to this office. Until quite recently the trapping fees were not transmitted with other revenue, which made a considerable amount of extra office work.

The trappers within the Reserves are given sufficient protection and supervision and we receive very few complaints. Certain areas are rather difficult to handle; for instance, near Cadomin there are one or two small areas, intentionally so, as there are always a few miners who want an area, and as the district is not suitable for a full-time trapper on account of the young people roaming around, we have awarded these areas to miners for part-time trapping, and we do receive a few complaints about these men that they are not trapping, etc., but we usually find the complainant wants the area himself, and if given him he would also be a part-time trapper.

All complaints, alterations in areas and new awards are referred to the ranger in charge before recommendations are made.

The registrations in Northern Alberta Forest Districts Nos. 7, 8 and 23 number 128, including a few partnerships. However, there are 111 registered areas which are within these three districts, and the areas west of the 6th Meridian, for which the Athabaska Reserve rangers are responsible.

This scheme was commenced in 1942 and was well established in 1943. It was quickly realized that a key map was necessary and each be given a number. A map of the three Northern Alberta Forest Districts and the Brazeau-Athabaska

Reserve was compiled from Reserve maps and sectional sheets upon which the boundaries of each area were marked. The rangers have their own key maps, but these were unsatisfactory for an office record, as the areas are not confined to ranger districts, and now areas may be both inside and outside of the reserves.

A definite boundary has also been established between the limited trapping permits and registered areas. It has always been the contention that there would not be enough areas to allow every prospective trapper space for registration, and that should an attempt be made, many of those close to settlement would not be over a few sections, and as the registration fee was fixed at \$10.00 per annum without any reductions, it would be impossible to prevent wholesale trespassing and the registered trappers would not receive the protection to which they would be entitled. However, the system now in effect is working quite well. Lines are not considered, except a few which come in to District No. 23 from the Grande Prairie District. Lines have been avoided as much as possible as, from a conservation standpoint, areas are far superior. Some of the areas held in this district appear to be large, but each case has been considered on its merits and an allowance made for non-productive territory.

Last winter a meeting was advertised requesting all registered trappers to attend for the purpose of forming an association. The meeting was held at Edson with thirty-seven present, and the Edson District Registered Trappers' Association was formed. Mr. D. W. Miller was elected President, Mr. Normal Willmore, M.L.A., was appointed Secretary-Treasurer, and the membership now stands at eighty-three.

Most trappers reported fair to good catches, but the market for certain furs was poor, especially for coyotes and wolves. A record of the coyote pelts submitted to this office for bounty was not kept, but it is estimated that over one hundred claims were submitted for payment during the year, many of the pelts being in very fair condition.

The closed season on beaver remained in effect, and a very satisfactory increase should be noted this summer as the population has now reached the numbers where the natural increase will be very noticeable.

To mention a few of the districts where beaver are plentiful, there is the McLeod River and tributaries from Cadomin downstream; Obed Lake area; Pembina River from its headwaters; the Erith River and tributaries; and to a lesser degree, the Athabaska River, where bank beaver predominate and, consequently, their numbers are difficult to estimate.

Generally speaking, this reserve and outside districts are not suited to muskrats. However, there are some trappers on the east side of District No. 7 who rely on muskrats as their principal source of revenue, and who state that they were quite numerous.

One application was received and referred to head office for permission to trap rats on his area, but was refused.

Other fur-bearing animals are holding their own, if not increasing. Most trappers in the marten areas had no difficulty in taking their limit of five per area. More lynx were taken last winter than for several previous years, and coyotes were plentiful. Towards spring it was generally reported that the wolves had moved on as a decrease in their number was noticed.

BIG GAME

The Athabaska Reserve is, of course, the hunting ground for big game hunters, and a number of outfitters as far west as Mount Robson derive their livelihood by taking hunting and fishing parties into this reserve, where sheep,

goat, cariboo and several species of bear are to be found. Moose and deer are plentiful, especially the latter in the Athabaska Valley.

GRAZING

Grazing is not a large item on this reserve. The annual grazing report has been submitted showing that 107 permits were issued last year, covering a total of 596 animals, some on a year round basis, others on a temporary basis. The grazing on the Brazeau Reserve chiefly consists of horses kept by miners for their own pleasure and who do not derive any income by renting their stock.

Summer grazing for thousands of head of stock is available, but as the surrounding district is not suited to farming and ranching, the freight charges to and from the Reserves for summer grazing is considered too high to make the venture profitable.

CYPRESS HILLS FOREST RESERVE

Report of Chief Ranger, J. D. Champion

FOREST PROTECTION

Fire Season:

The Cypress Hills Forest passed through a very hazardous fire season without mishap. Several unextinguished camp fires were found by the ranger while on patrol and put out before causing any damage.

Detection and Suppression:

The reserve staff depend to a large extent on ranchers and farmers living near the forest, connected to forest headquarters by telephone for fire detection. It is hoped that as soon as war and labour conditions permit, we will be able to continue our telephone line to the west end of the forest—the only part not connected by telephone.

Fire Fighting Equipment:

The equipment is in good shape, with one Johnson pump and sufficient tools to equip a fair-sized crew. It is recommended that the Department should procure a small tractor and a bulldozer to be used for fireguard maintenance and new construction, also for fire fighting should occasion arise.

FOREST ADMINISTRATION

Forest administration on this reserve requires a great deal of time and traveling, which to the casual observer may appear to be out of proportion to the size of the reserve. However, it must be remembered that the reserve is completely surrounded by settlers and is accessible at all points. We are pleased to report that with constant travel both day and night we are cutting down on the amount of timber being stolen and on poaching of game. However, we have not the help necessary to make a really good job; also we have kept our travel by car to a minimum on account of war conditions and restrictions. During the summer and fall months a complete patrol of the reserve should be made at least every other day, and at times, every day.

Game:

With regard to the game and fur animals to be found on this reserve, a large number of both white-tailed and mule deer are seen in the area. Coyotes are very plentiful, and there are a few lynx and a large number of beaver. Squirrels

should be liberated in this reserve. We suggest a change in policy with regard to the game situation in this reserve. Instead of its present status as a game preserve, we suggest turning it into a game management area. This would allow hunting as conditions permit. The beaver should be farmed as they are very plentiful.

Timber:

All timber business is carried on under permit. Conifers are marked by the forestry staff before being cut. In this manner, we are carrying out a thinning programme which could be improved upon. However, at the present time labour conditions do not allow any alternative, and this system is far better than promiscuous cutting.

Silvics:

With the limited amount of labour, it has been very difficult to carry out a thinning programme of any consequence. However, with the co-operation of one of our timber operators we have been doing some of this work.

A fireguard has been cut through a heavy stand of Lodgepole Pine. All timber over three inches at butt is sold at regulation rates.

It is hoped that in time reproduction will establish itself on this fireguard which was started on a very small area cut over several years ago. It is proposed that as soon as reproduction has reached a height of about five or six feet along the fireguard, another guard deeper in the timber be cut. By this method we will not only be conducting a safety first campaign, but we will have stands of different ages coming along at required intervals. Working under this same principal, we have started to clean up the dead timber in one of our large stands of Lodgepole Pine. On this project all the dead timber and material under three inches is given to the operator to recompense him for labour. Attention should be paid to the area burned over in 1934, also to several mistletoe areas. In some of these areas the mistletoe has dwarfed the pine to a point where it is useless. It is proposed that following the war, we have a crew of men working in the forest for five or six months of the year on these thinning projects.

USES

Grazing:

A total of 3,000 head of cattle and horses are grazed each year under permit during the summer grazing season. During the past winter permits were issued. This has been discontinued, as it is believed the remaining forage is more valuable as a watershed protection, as grass and small brush holds snow which otherwise would blow off and be of no value, as it would run off in the spring. The grass on this reserve is of good quality, and a lot of stock is marketed off grass without requiring extra feed for finishing. Our greatest problem in connection with grazing is trespassing. The farmers cannot understand why we should have a carry-over of forage, and when not granted a permit, persist in chasing their stock either on the reserve or up road allowances leading to the reserve. We have had to turn down quite a number of applications during the past few years. However, it is felt that when the price of beef drops, a number of farmers will reduce their herds and thereby relieve the situation.

Watering and Feeding Grounds:

A number of ranchers and farmers living adjacent to the reserve, rent feeding and watering rights in the reserve. They find these uses indispensable, as in some cases they have no running water on their own property.

Pastures:

Some of the stockmen have pasture held by unexpired lease within the reserve, but without exception the leases cover isolated parts that the stock associations operating within the reserve favour being fenced off, as they would otherwise create pockets wherein the stock would congregate.

Improvements:

It has been impossible to keep up with the improvement work owing to the heavy demand for timber during the summer season and to a lack of help.

RECREATION

Elkwater Lake Summer Resort continues in popularity as a holiday resort. This site is beautifully situated on the north side of the Cypress Hills, a distance of twenty-seven miles south of the Trans-Canada Highway, from which a good gravelled highway leads to the resort.

This location might be referred to as the oasis of the south-eastern part of the Province, and could without the expenditure of a large sum be developed into a beauty spot that would be amply justified in post-war years.

Fish and Game Administration

REPORT OF THE FISH AND GAME COMMISSIONER,

E. S. HUESTIS

The year 1945 is an important one in the Department of Lands and Mines because, during this year, the Department reaches its fifteenth birthday and may look back upon a series of years with increasing progress, increased revenues and better service to the public in the handling of the natural resources of the Province.

At the time of the transfer of the Natural Resources in 1930 the Fisheries Branch was a part of the Department, but at that time the Game Branch was part of the Department of Agriculture. In 1936 the Fisheries Branch was placed with the Department of Agriculture, and they were both returned to the Department of Lands and Mines in 1941. The statistics, therefore, which are included in this report will give a survey of the progress of the Fish and Game Branches from 1941 to the present.

Angling conditions during the year 1944-45 were better than in some of the previous years. Certain areas containing angling streams are now producing good creels, and other areas, particularly in the southwest portion of the Province, contain good stocks of fish, but these stocks were reduced temporarily by drought conditions during the late summer and early fall of 1944.

In the commercial fishing field, the demand for whitefish and other species has been strong throughout the period, and prices offered for commercial fish have been extremely high, so high, in fact, as to cause considerable concern and to disrupt temporarily the proper handling of our products and their distribution to market. High prices have attracted many people into the business of commercial fishing who are not in any sense fishermen, but have acquired sufficient knowledge to be able to handle nets, and thus are able to take out a license and join with the regular fishermen in the taking of a catch. On some lakes the number of licenses issued has caused serious concern, not only to the Department, but to everyone interested in the fish business. In one lake alone the number of licenses issued was five to six times as great as the lake could ordinarily stand, and the allotment of fish for the lake was taken out in such a short time that if the demand had not been extremely great, the market would have been glutted, with a resultant loss to the fisherman and the dealer. This condition has been overcome to some extent by limiting the time in which commercial fishing can be carried on, but it has not been found to be a complete cure, and other means may have to be found to reserve to the legitimate fisherman his trade, which is the taking of the product from the lake and selling it to the dealer.

The migratory bird situation continues to improve, and statistics show that the number of ducks, geese and other waterfowl are still on the increase throughout not only this Province, but other provinces of Canada during the summer months. The majority of this increase is due to natural causes, although some assistance has been given in the reclaiming of areas to water which had dried up during the drought years.

The supply of upland birds does not give as good a picture. Our ruffed grouse stocks have been depleted to the extent that it has been found necessary to put a closed season on this bird. Our stocks of prairie chicken and Hungarian partridge in some areas of the Province have been depleted, and it has been necessary to confine the hunting of these two birds to limited areas, particularly

in the south part of the Province. The pheasant has managed to increase in most areas and the season is being extended each year, although the bag limit remains the same.

The big game situation is good in spite of the inroads of an enlarged population of wolves and a shortage of hunters and ammunition to keep down these predators. The population of elk has increased in certain areas and has spread out, allowing an increase in the area over which they may be taken by the hunter, and it may be necessary in the near future to increase the bag limit so that this animal will not increase to the proportion where it becomes a menace to settlers and ranchers. This is particularly true in the southwest corner of the Province, where they have encroached upon farms and ranches and destroyed or eaten large quantities of feed. Reports on sheep, goat, deer and caribou are all fairly good. There appears to be a decrease in the number of deer in certain areas, possibly due to the increase and spread of the elk population. This may also, in part, be the cause of a decrease in the moose population in certain areas. The decrease, however, in each of these species is not particularly alarming, and it is hoped that both will recover as the wolf menace decreases, which is expected within a short time. The antelope population in southeastern Alberta continues to increase, and they are in a very healthy condition. It is found that the British Government Experimental Station north of Medicine Hat, which was causing some concern, has turned out to be a blessing in disguise as these animals are using the area more as a game preserve than as a place to shun on account of the possibility of running foul of experiments carried on in the area.

The quantity of fur has been considerably reduced; certain types of fur have stood up, but unfortunately the muskrat population in the northern part of the Province has not justified an open season, and the number of foxes has been considerably reduced. The price of fur, however, has remained high, and the return to the trapper has been very good. It has been found necessary to protect the beaver population by a closed season throughout the entire Province, these animals only being taken where they are causing destruction in settlement and particularly in irrigation districts. Although the population of muskrats has deteriorated in the northern part of the Province, there has been an increase in the southern part of the Province. A crop of this animal has been taken by the introduction of a special permit issued to farmers having sloughs or lakes on their land. The desire of the Department is not that these animals should be trapped out, but that the farmer should consider the muskrat as a crop from which he can obtain revenue the same as other crops grown on his farm. Many small sloughs contained on farm lands are a potential revenue producer through the introduction of muskrats, and any farmer having such a slough on his land should see that the muskrat is protected and that a yearly crop is taken. In this way alone can he make the water on his land really productive.

The fur farming industry in the Province has steadily increased in the quantity of animals produced, but more particularly it has advanced in the quality of fur produced for the market. Fur produced on Alberta fur farms is now able to top eastern markets in value, and the fur farmer is to be commended for his initiative in producing better and better quality of animals each year. The price of ranch raised fur has remained fairly high, particularly mink, and the fur farmer finds himself in a reasonably prosperous condition. It is expected that the fur farming industry in the Province will increase on the return of men from overseas who are interested in this business, and that we will eventually find that the Province of Alberta will lead all other provinces in the Dominion, not only in quality, but quantity of fur produced from farms.

A number of individuals have become interested in the farming of muskrat and beaver. This is somewhat of a new venture, and all of the experiments have

not been entirely successful. Some fur farmers, however, have been able to produce good results, and it is expected that as time goes on better methods will be developed with the result that the crop of beaver and muskrats from fur farms will increase.

FISHERIES

The Fisheries Branch has continued in its policy of increasing the number of fingerlings and yearling trout produced for introduction in angling streams throughout the Province. It is increasingly evident from reports received from all parts of this continent that the artificial reproduction of fry and their introduction to streams give practically negligible returns. Reports, however, from the same sources are conclusive enough to warrant the expenditure of money on rearing ponds in various parts of the Province for the raising of fingerlings and yearling fish which will be of sufficient size when they are introduced to the streams to have a larger percentage of survival. It is further found from reports from different parts of the continent that the introduction of fingerlings in the streams during the spring will give much greater returns than if the same fingerlings were placed in our streams during the summer or fall.

To carry out the policy of distribution of fingerlings in the spring requires that we locate large springs where rearing ponds can be located so as to supply, as far as possible, ice-free ponds throughout the winter months. The number of springs in the Province is great, but the number of springs with an adequate supply of water is small. It is also found that the temperature of our springs is low compared with the temperature of springs south of the border in a similar location to the mountains in the State of Montana. The higher the temperature of the spring, the greater the increase in growth of fingerlings.

The Fisheries Branch have continued in their efforts to secure eggs for the hatchery from local sources. Spawning operations have continued at Kananaskis Lakes, and in addition, brown trout have been spawned with excellent results at Gap Lake on the Banff Highway. It was found that eggs produced by our own spawning operations were superior to any we have been able to purchase from outside sources, and it is hoped to continue these operations and increase them as years go by.

Improvements have been made at rearing ponds already established by the Fisheries Branch, and efforts are being made to locate additional large springs or sources of good water where new rearing ponds can be constructed. The hatchery placed at our disposal by the Calgary Brewing and Malting Company has sufficient capacity to supply fry to a number of extra fish rearing ponds, and these will have to be located and constructed before any consideration is given to an additional hatchery, or to an extension of the present hatchery.

The angling season in southern and western Alberta was increased during 1944 due to the improved conditions, and also due to the fact that the season somewhat short considering periods of time in which angling was not at its best owing to high water or other conditions.

In handling the natural reproduction of trout, it has been found advisable to close certain good spawning streams to angling. The Department has worked out a very simple system from the standpoint of administration whereby all small streams within the Forest Reserves along the east slope of the Rockies which are unnamed on Forestry maps shall be considered as spawning streams and be closed, which will allow for angling to be carried on, on the larger streams which are named on the map.

In an effort to improve artificial reproduction in angling waters throughout the Province, a conference was held by members of the Provincial Service in conjunction with members of the Dominion Government Parks Fishery Service,

where methods were thoroughly discussed, information exchanged, and an understanding between the two Services as to the exchange of information and the use of fishery experts and information and advice obtained from them. The Fisheries Service and the Parks are handling fishery problems on the same watersheds, and although there is a political boundary between the two, the problem is one and the same for both Services. The co-operation of the two Services, therefore, should be of benefit to both and should increase the efficiency of each.

In the commercial fishing business the picture has not been as good. In some lakes throughout northern Alberta the infestation of whitefish by the tapeworm, *triaenophorus crassus*, has created a problem in the marketing of this fish in the United States, which takes the greater part of our production. The Pure Foods Administration in the United States have become alarmed at the introduction of infested fish in their markets, and it was therefore necessary for the Dominion and the three prairie provinces to get together and work out ways and means of overcoming this problem, which threatened the entire commercial fishing industry of the prairie provinces.

Conferences were held by representatives of the Governments concerned, and a system of lake survey set up to determine the amount of infestation in all whitefish producing lakes in the three prairie provinces. The results of the survey gave the Departments concerned a sufficiently clear picture to enable them to determine the lakes from which whitefish would be acceptable to the United States administration. Having surveyed the lakes, it was therefore necessary that a rigid inspection system be set up to see that the products of clean lakes could gain access to American markets and the products of unclean lakes be refused, not only in the United States market, but on our own Canadian market. This necessitated the closing of certain lakes which were very heavily infested.

As far as the Province of Alberta is concerned, the results of lake surveys and rigid inspection have been good. It has not been necessary to close many of our commercial lakes, and where some lakes were close to the borderline we have been able to market the whitefish from these lakes by a candling or filleting process meeting the requirements of the export market. It will be necessary that a rigid inspection be kept up to assure the market that the whitefish produced in Alberta is all of superior quality and fit to be introduced into the United States market and our own market.

The Fisheries Branch have dealt with the problem of feed supply to fur farmers located adjacent to commercial fishing lakes in a very satisfactory manner. Arrangements have been made whereby coarse fish may be taken even during the closed season on the better commercial species. The fur farmer found it impossible to obtain storage facilities to stock up sufficient fish food to last over the spawning or closed season, and it was found that by careful supervision certain types of coarse fish which were competing for the food supply in commercial lakes could be taken without interfering with the better species which are in demand on the fish market.

GAME

The large increase in the migratory bird population is good from the standpoint of the hunter, but it brings with it a problem to farmers in many areas where waterfowl abound. In some areas it is found that ducks and geese in large numbers are descending upon the farmers' crops, and the loss in some sections is very great. This is particularly true when weather in the fall of the year compels the farmer to leave his crop either swathed or in the stook over a considerable period of time before it is threshed.

To assist the farmer in this problem, the Department obtained a clause in The Migratory Birds Convention Act Regulations whereby, during the period

prior to the open season, from August 1st the farmer may, under a general permit issued at Ottawa, shoot migratory waterfowl which are destroying his crops and he may call upon the assistance of hunters or other persons in the neighbourhood in the shooting of these birds in his field. All that is required is that the farmer give written authority to the hunter for the shooting of waterfowl creating damage on his land and advising the Department of such authority, together with the name and address of the person to whom it is given.

During the past few winters the number of migratory waterfowl remaining in Alberta has increased. It is found that more and more birds are attempting to survive the winter in any area where open water occurs. As ice conditions encroach on these open areas and food supplies diminish, the fate of these waterfowl becomes precarious. The numbers have become so large that it is economically impractical to attempt to feed them, and the loss, although comparatively small, may some year become rather staggering if we get a hard winter or a very bad storm during any winter period. In an effort to overcome this problem the Department has lengthened the duck and goose season to the middle of December.

The upland bird situation throughout the Province is not entirely good. As stated above, there is a decided decrease in certain species, such as ruffed grouse, chicken, and Hungarian partridge. On the other hand, the quantity of pheasants, particularly in the Eastern Irrigation District, has increased to the extent that the number of hunters going into this area for pheasant shooting within season has increased so much that accommodation is not available to all, and the shooting has, in some parts, become somewhat crowded. The Department have carried on some trapping operations with the object of distribution of pheasants from areas where they are crowded to other areas in the Province where it is felt that they will find congenial conditions. Distribution has not been large, but the results of distribution and spreading from congested areas has enlarged the territory over which this bird may be taken, and it is hoped that eventually all suitable areas within the Province will be stocked to the extent that the crowding of hunters into one district will be overcome.

In an effort to increase the natural reproduction of our bird life, the Department has again increased the amount of money made available to the Alberta Fish and Game Association and its locals for the carrying on of a crow and magpie destruction campaign. The Association is to be highly commended in the very fine campaign carried on by them during the year 1944. The Department did not defray all the cost of this campaign, and it was necessary for the sportsmen to dig into their own reserves for funds in order to complete this very fine campaign.

The handling of big game in the Province during the year under review has not been a particularly difficult one. As outlined above, most species have either increased in number or held their own, and the number of hunters has been materially reduced by large numbers of men being in the armed services.

One problem facing the Department is that of the depredation of wolves and cougar in the big game areas. With the sudden drop in the number of rabbits, known as the "rabbit crash", some of the natural food for the wolf population was removed. It was therefore necessary that these animals spread out in search of other means of livelihood. There was a spread towards the settlement in search of food, and reports have been received from various parts of the Province of losses of cattle, sheep and other farm animals. In addition, the wolves have made some inroads on big game animals, particularly deer and moose. Efforts were made by the Department to determine the best method of decreasing the number of wolves and cougar, and inquiries were made from the best known sources on the continent as to the use of snares, poison and other methods.

In view of the shortage of steel traps and in the hope that the use of snares would assist in the cutting down of the wolf population, the Department was forced, much against its policy, to allow the use of snares on registered traplines throughout the Province in order to increase the catch of wolves. This method has not been at all satisfactory, and the number of wolves taken has been extremely small.

Inquiries were made of experimental laboratories in the United States in regard to the use of poison. The information the Department obtained from all sources was to avoid its use at any cost. It was explained by these experts that the use of poison with its resultant loss in birds and other animals would have more ill effect than any good which might be obtained.

Demands were received from all parts of the Province to increase the bounty on wolves, which at that time amounted to \$10.00 per animal. Inquiries were made from the United States and various provinces of Canada, and it was learned from the reports received that an increase in the wolf bounty, where it had been tried, had not materially increased the number of wolves taken. This contention was proved by the fact that in one year the price of wolf pelts had increased by five times the amount received in the previous fur year. The number of wolves taken, however, did not materially increase even with the increased return to the hunter.

In spite of reports of depredation of wolves and cougar throughout the big game country, investigation has shown that there is a good stock of most species. The stock of deer and moose is down slightly from previous years, but this is offset by the very large increase in elk and antelope.

A great many of the hunters in the big game country are taken into the hunting territory by outfitters who are licensed with the Department. During the year under review a number of these outfitters got together and formed an outfitters association with a view to offering advice from their association to the Department in the setting up of big game regulations. This group of outfitters is to be commended on their initiative, and the Department welcomes any suggestions which they offer in the solution of big game problems.

One of the contentious points which had been bothering the Department for some time was solved by the assistance of this association, namely, the fee to be charged for non-resident hunters who came into the Province with a view to taking back to their own provinces and to the United States some of the fine trophies to be obtained here. There was an objection, particularly from the American hunter, to the large fee which was being charged for a general non-resident big game license, and it was therefore decided to reduce this license to \$50.00 with an additional \$25.00 for a special license to take deer, moose and caribou during the sheep and goat season in restricted areas in the western part of the Forest Reserves. In addition, the hunter was required to pay a trophy tax of \$25.00 for each animal with the exception of deer, for which a charge of \$15.00 is made. No trophy tax is charged in the case of antelope, due to the fact that a special license is required, for which a charge of \$15.00 is made. This system proved entirely satisfactory to the outside hunter, as he was only charged for what game he was able to take.

The fur crop in Alberta continues to be handled in an efficient manner by the continued use of the registered trapline policy. Many trappers have become conservation minded when assured of a definite area over which they may take their fur, and many of them are carrying on conservation methods with a stabilization of water levels for the raising of muskrats, the introduction of beaver and other important work on their lines to increase their fur crop.

At the instigation of the Department a number of local trappers' associations have been formed at various points throughout the Province. It is the desire of

the Department that there will be many more of these associations formed, one in each centre where trappers gather together to go on their traplines. It is expected that in co-operation with one another better methods of trapping will be devised, that a scheme of co-operative marketing of their fur will be arranged, and when sufficient local associations have been formed it is the desire of the Department that a provincial organization be created so that the trappers can be represented on the Advisory Council on game matters and help in the drafting of regulations covering trapping.

One of the main efforts of the Department has been to secure to the trapper an orderly marketing of his fur. It is the desire of the Department that the trapper shall receive a fair price for his fur no matter where he sells it. It has been necessary, therefore, that rather strict control be placed upon fur dealers. The restricting of the activities of the travelling fur dealer was followed in 1944 by compelling all fur dealers having a resident or non-resident license to operate from a definite business premises. It had been the habit of certain dealers to operate from hotel rooms, boarding houses, tents, or even railway cars, which did not lead to the orderly marketing of fur, and this practice had to be discontinued.

Another essential requirement for the orderly marketing of fur is the setting up of a uniform fur tax for all provinces in the Dominion of Canada. Alberta took the initiative in such a programme, and during 1944 invited the provinces of Western Canada to get together and work out a uniform fur tax which would apply in all provinces so as to avoid any possibility of bootlegging of fur from one province to the other, with the resultant loss to the trappers, the dealer, and the Government. It was unfortunate that the Province of British Columbia could not attend this conference; however, the Provinces of Manitoba, Saskatchewan and Alberta were able to work out a uniform fur tax applicable in each of the three provinces, and this arrangement has worked out entirely satisfactorily. It is proposed that this arrangement between the three prairie provinces could very well be extended to take in the other provinces of Canada, the Northwest Territories and the Yukon.

For some years it had been noticed by the Department that there was a continual leakage of illegal fur, and even legal fur, to other provinces, with the resultant loss of royalty. It was found that a large quantity of this fur was going through the mails, and as a result the Post Office Department was approached for a solution, not only for this Province, but for all provinces of Canada. The Postal Department were extremely co-operative, and sent out circulars to all Postmasters throughout Canada outlining steps which must be taken when illegal fur is presented for transmission from one province to another. This action on the part of the Postal Department has almost eliminated such practice and has contributed very materially to the orderly marketing of our fur crop.

Prior to the year under review, it had been the policy of the Department to allow Indians to secure trapping permits free of charge. It was found on examining the policy in other provinces that in many cases Indians were being charged for their trapping licenses, particularly where registered traplines had been set up. In view of the fact that this Province has set up registered traplines over a greater area than any province in Canada, and as approximately one-third of all traplines were held by Treaty Indians, it was considered that the Indian should be required to pay his way along with the other trappers in view of the fact that both could obtain the same revenue for the production of fur.

In order to give the Indian a start, the Dominion Government through the Indian Affairs Branch has been good enough to pay to the Alberta Government the registration fee for all Indian registered traplines during the year under review.

The fur farming industry in Alberta continues to prosper. The number of fur farms registered with the Department has not increased to any extent, no doubt due to the fact that many men who would normally go into this business have been engaged in military activity. Those persons who have remained in the business have, however, through their efforts and with some assistance from the Department, steadily increased the quality of their products. The Department, with the co-operation of the Fur Breeders Association, have held field days at different points throughout the Province where animals are judged, advice given, and the new and small fur farmer is able to acquire the best advice and knowledge obtainable within the Province. In addition, the Department has assisted the association in the holding of an annual live animal show and an annual pelt show, and the competition at these two shows has become very keen. Judges from eastern United States and eastern Canada have repeatedly stated that the quality of fur produced in this Province is second to none in the North American continent. Alberta fur in sales in eastern Canada and the eastern United States have topped the market.

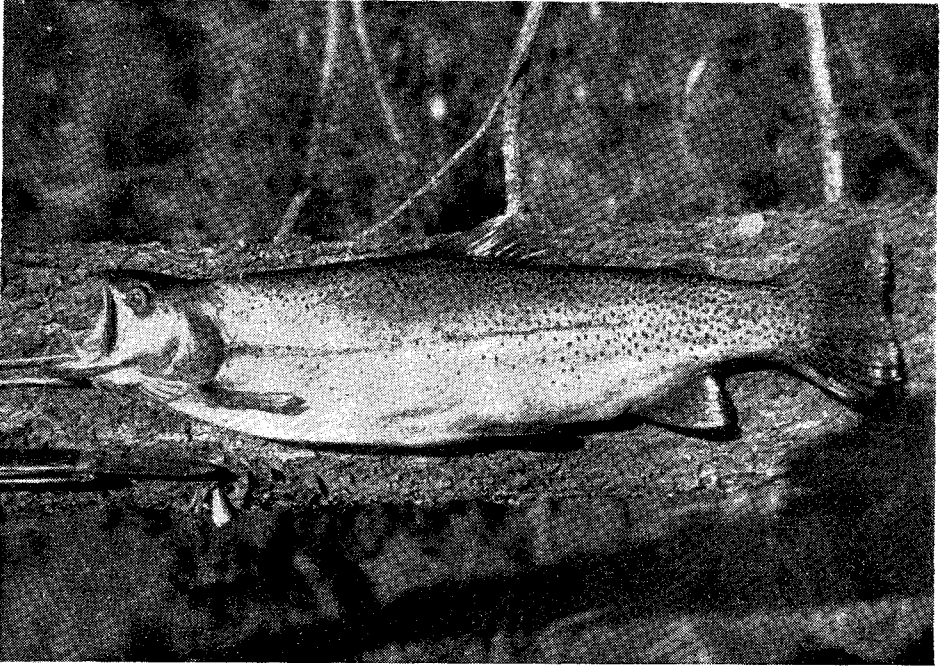
The farming of muskrats and beaver in this Province is in its formative stage. It was found by the Department that a fur farm license for muskrat farms on certain sloughs and lakes was merely giving to the individual a monopoly for the taking of fur on this particular body of water. It was therefore necessary that we tighten up our regulations to require that muskrat and beaver farms must be fenced the same as all other fur farms so as to exclude wild stock from the area and to keep in the breeding stock owned and controlled by the fur farmer. It is expected that as certain types of wire become available many persons will go into the farming of muskrats and beaver, and that this will become a fairly large business in years to come.

The handling of the wild life resources of the Province brings out many and varied problems, and in dealing with these problems the Department is indebted to the advice of the Advisory Council on fish and game matters. This Council is composed of trained biologists from the University, and representatives of the Alberta Fish and Game Association who represent the large sporting public. It is hoped in the near future to extend the Advisory Council to take in representatives from the fur dealers, farmers, the trappers, the Indians and the outfitters.

In addition to the advice of our Advisory Council in dealing with wild life problems, it has been the policy of the Department to get the best available information from any source wherever it can be obtained.

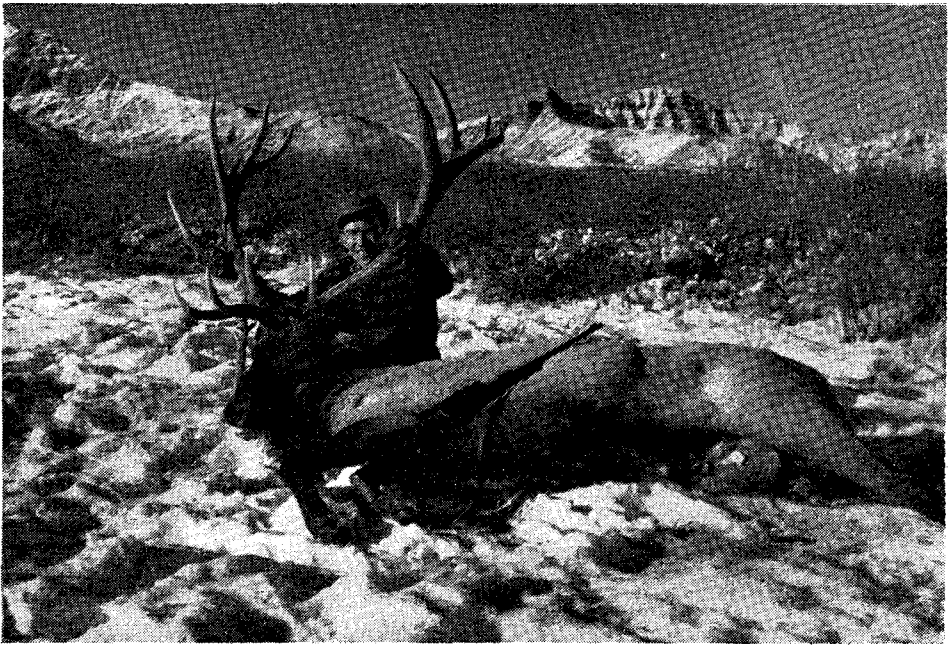


Predators taken by the Game Guardian



A Three Pound Native Cutthroat Trout caught in the Livingstone River (The Gap)

Photo by F. H. Riggall, Twin Butte, Alberta



Big Bull Elk taken in South Western Alberta

Photo by F. H. Riggall, Twin Butte, Alberta



DEPARTMENT OF LANDS AND MINES

NUMBER OF ANIMALS EXPORTED FOR BREEDERS FROM FUR FARMS IN
ALBERTA FOR SEASON 1944-45

Name	Quantity	Price	Total
Fox, Silver	9	\$125.00	\$ 1,125.00
Fox, W. F. Silver	3	150.00	450.00
Fox, Blue	1	100.00	100.00
Fox, Pearl Platinum	1	300.00	300.00
Mink, Standard	505	100.00	50,500.00
Fox, Silver Blue	39	200.00	7,800.00
Fox, Blue Frost	34	200.00	6,800.00
Mutation	14	125.00	1,750.00
Marten	15	150.00	2,250.00
	621		\$ 71,075.00

CONVICTIONS UNDER THE GAME ACT

Number of Convictions:	
1941-1942	173
1942-1943	213
1943-1944	187
1944-1945	151

CONFISCATED FURS

Amount Realized from the Sale of Confiscated Furs:	
1941-1942	\$3,031.96
1942-1943	2,682.68
1943-1944	5,820.96
1944-1945	7,881.18

TRAP-LINE REGISTRATIONS

Number of Registered Trap-lines and Revenue:	
1941-1942	444 \$ 4,440.00
1942-1943	1,122 11,220.00
1943-1944	1,834 18,340.00
1944-1945	1,893 18,930.00
Number of Registered Trap-lines Issued to Treaty Indians:	
1941-1942	182
1942-1943	421
1943-1944	834
1944-1945	753

FUR DEALER'S LICENSES, ETC.

	1941-1942	1942-1943	1943-44	1944-1945
Resident Fur Dealer's Licenses to carry on business in a City and elsewhere than in a City	572 \$6,390.00	426 \$4,865.00	393 \$4,915.00	387 \$4,610.00
Non-Resident Fur Dealer's Licenses to carry on business in Province	9 900.00	9 900.00	9 900.00	6 600.00
	1 50.00			
	6 30.00			
Resident Travelling Fur Purchasing Agent's Licenses	89 2,225.00	65 1,625.00	54 1,350.00	39 975.00
Tanner's Licenses	3 30.00	5 50.00	3 30.00	2 20.00
Furrier's Licenses	17 170.00	19 190.00	15 150.00	18 180.00
Resident Travelling Fur Dealer's (North of Township 96)	4 60.00	9 145.00	.....	.....
	<u>\$9,855.00</u>	<u>\$7,775.00</u>	<u>\$7,345.00</u>	<u>\$6,385.00</u>

FUR TAX REVENUE

1941-1942	\$80,933.42
1942-1943	84,396.85
1943-1944	83,204.26
1944-1945	84,188.58

GAME LICENCES

April 1st, 1944, to March 31st, 1945

	Number of Licenses	Fee	Total Amount
Resident's Bird Game	10,795	\$ 2.00	\$ 21,590.00
Non-Resident's Bird (Canadian)	102	10.00	1,020.00
Non-Resident's Bird (Non-Canadian)	42	25.00	1,050.00
Resident's Big Game	7,744	3.00	23,232.00
Limited Trapper's	4,943	2.00	9,886.00
Guest Game Bird (Canadian)	25	2.00	50.00
Guest Game Bird (Non-Canadian)	25	5.00	125.00
Non-Resident's General Game	77	50.00	3,850.00
Permit to Collect	12	various	138.00
Taxidermist's	6	5.00	30.00
Resident's Special	69	5.00	345.00
Non-Resident's Special	51	25.00	1,275.00
Guide's	67	2.50	167.50
Cold Storage	4	5.00	20.00
Game Farm	1	5.00	5.00
Outfitter's	27	various	920.00
Resident's Special Antelope	551	5.00	2,755.00
Non-Resident's Special Antelope	23	15.00	345.00
Permit to Export	1	5.00	5.00
Non-Resident's Permit to Export	88	various	4,210.00
Fur Farmer's	1,220	various	5,235.00
Beaver Permits	70	1.00	70.00
Non-Resident's Spring Bear	5	25.00	125.00
			<u>\$76,448.50</u>

COMPARISON OF GAME LICENSES ISSUED

	Season 1941-42	Season 1942-43	Season 1943-44	Season 1944-45
Resident's Bird Game	12,695	11,536	9,673	10,795
Non-Resident's Bird (Canadian)	13	9	13	102
Non-Resident's Bird (Non-Canadian)	86	34	41	42
Resident's Big Game	6,785	6,912	7,957	7,744
Limited Trapper's	4,869	3,480	3,762	4,943
Non-Resident's General Game	89	49	28	77
Non-Resident's Special	80	24	22	51
Guide's	74	52	44	67
Outfitters	48	50	52	27
Resident Special	47	46	40	69

DEPARTMENT OF LANDS AND MINES

ALBERTA FUR PRODUCTION

Kind of Fur	Season 1941-1942				Season 1942-1943				Season 1943-1944				Season 1944-1945			
	Total No. of Pelts	Average Value per Pelt	Total Value of Pelts	Total No. of Pelts	Average Value per Pelt	Total Value of Pelts	Total No. of Pelts	Average Value per Pelt	Total Value of Pelts	Total No. of Pelts	Average Value per Pelt	Total Value of Pelts	Total No. of Pelts	Average Value per Pelt	Total Value of Pelts	Total No. of Pelts
Badger	5,004	\$ 7.00	\$ 35,028.00	3,227	\$ 7.25	\$ 23,395.75	4,031	\$ 3.42	\$ 13,786.02	2,143	\$ 4.75	\$ 10,179.25	2,143	\$ 4.75	\$ 10,179.25	2,143
Bear	166	2.00	332.00	120	4.85	582.00	121	4.00	484.00	73	3.50	255.50	73	3.50	255.50	73
Beaver	3,438	24.90	85,606.20	5,595	41.70	233,311.50	5,968	34.61	206,552.48	2,672	40.60	108,483.20	2,672	40.60	108,483.20	2,672
Ermine	526,269	1.30	684,149.70	220,569	1.60	352,910.40	180,473	2.37	427,721.01	148,959	2.23	332,178.57	148,959	2.23	332,178.57	148,959
Fox (Silver)	16,296	23.31	379,859.76	16,248	25.00	406,200.00	.....	.....	.....	478	27.40	13,097.20	478	27.40	13,097.20	478
Fox (Cross)	6,567	15.21	99,884.07	12,716	17.50	222,530.00	.....	.....	.....	5,292	15.00	79,380.00	5,292	15.00	79,380.00	5,292
Fox (Red)	14,789	10.74	158,833.86	31,410	13.55	425,605.50	31,645	14.62	462,649.90	10,817	8.70	94,107.90	10,817	8.70	94,107.90	10,817
Fox (Blue)	534	16.97	9,061.98	668	18.50	12,358.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fox (White)	16	33.43	534.88	12	33.43	401.16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lynx	772	41.43	31,983.96	1,271	45.00	57,195.00	1,474	49.09	72,358.66	1,384	42.00	58,128.00	1,384	42.00	58,128.00	1,384
Mink	76,090	10.13	770,291.70	134,127	12.85	1,723,531.95	65,198	20.98	1,367,854.04	8,307	20.20	167,801.40	8,307	20.20	167,801.40	8,307
Muskrat	250,845	2.08	521,757.60	227,757	2.65	603,556.05	225,661	2.12	474,161.32	159,477	2.45	390,718.65	159,477	2.45	390,718.65	159,477
Otter	99	15.75	1,559.25	155	21.00	3,265.00	225,661	28.26	6,373.30	88	27.50	2,420.00	88	27.50	2,420.00	88
Rabbit	5,791,077	2.70	15,635,929.00	573,756	2.05	1,165,367.00	225,213	3.94	887,340.00	43,962(Jack)	.65	28,575.30	43,962(Jack)	.65	28,575.30	43,962(Jack)
Skunk	33,369	2.70	90,100.80	19,727	2.85	56,221.95	28,460	3.94	112,132.40	13,850	1.50	20,745.00	13,850	1.50	20,745.00	13,850
Squirrel	4,967,293	3.32	16,489,738.56	1,165,367	3.36	3,915,522.12	687,059	16.36	11,223.40	1,277,922	6.25	575,096.40	1,277,922	6.25	575,096.40	1,277,922
Wolf (Coyote)	18,763	12.55	235,475.65	23,678	16.25	384,767.50	31,028	16.36	507,618.08	19,385	12.50	242,250.00	19,385	12.50	242,250.00	19,385
Wolf (Timber)	505	7.76	3,918.80	477	17.75	8,466.75	732	15.06	11,023.92	632	12.50	7,900.00	632	12.50	7,900.00	632
Wolverine	14	10.00	140.00	12	15.50	186.00	26	15.00	390.00	16	20.00	320.00	16	20.00	320.00	16
Fitch	367	1.25	458.75	232	1.50	348.00	155	1.50	232.50	62	1.50	93.00	62	1.50	93.00	62
House Cats	833	3.35	2,791.55	329	3.50	1,151.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Raccoons	38	3.00	114.00	188	4.00	751.20	10	2.00	20.00	.....	.....	.....	.....	.....	.....	.....
Wild-cats	2	1.50	3.00	4	2.00	8.00	10	2.00	20.00	.....	.....	.....	.....	.....	.....	.....
Fisher	.....	.....	.....	16	55.50	888.00	15	55.83	837.45	10	73.50	735.00	10	73.50	735.00	10
Marten	.....	.....	.....	635	35.75	22,701.25	685	55.06	37,716.10	631	58.15	36,692.65	631	58.15	36,692.65	631
Fox (other than Red)	.....	.....	.....	.....	.....	.....	27,888	20.00	557,760.00	.....	.....	.....	.....	.....	.....	.....
	11,713,686	.....	\$5,162,635.73	2,468,306	.....	\$5,067,172.18	1,513,927	.....	\$4,686,505.62	1,696,140	.....	\$2,048,063.27	1,696,140	.....	\$2,048,063.27	1,696,140

LICENSED ALBERTA FUR FARMERS

	Season 1941-42	Season 1942-43	Season 1943-44	Season 1944-45
Fox Farms	305	231	213	228
Mink	831	773	750	824
Fitch	17	10	1	14
Nutria	16	13	8	8
Fox and Mink .....	..	86	87	110
Muskrat and Beaver	18	19	33	15
Raccoon	3	5	2	3
Badger	2	1	..	..
Marten	2	6	..	8
Rabbit .....	..	..	..	9
Lynx	1	2	..	1
	<u>1,195</u>	<u>1,146</u>	<u>1,094</u>	<u>1,220</u>

MUSKRAT AND BEAVER PERMITS ISSUED

	Season 1944-45
Muskrat Permits Issued	349
Musk rats Reported Taken	11,085
Beaver Permits Issued	65
Beaver Reported Taken	707
Special Muskrat Permits, Spring 1945	1,032
Musk rats Reported Taken	75,407

BOUNTY ON TIMBER WOLVES, TIMBER WOLF PUPS, COUGARS AND COYOTES

	Season 1941-42	Amount Paid	Season 1942-43	Amount Paid	Season 1943-44	Amount Paid	Season 1944-45	Amount Paid
Timber Wolves at \$10.00	716	\$7,160.00	444	\$4,440.00	695	\$ 6,950.00	1,211	\$12,110.00
Timber Wolf Pups at \$5.00	57	285.00	84	420.00	..	..	..	..
Cougars at \$20.00 and \$15.00	36	720.00	41	615.00	25	375.00	73	1,095.00
Coyotes at \$5.00 .....	..	..	..	..	3,705	18,525.00	3,963	19,815.00
Coyotes at \$2.00 .....	..	..	..	..	849	1,698.00	57	114.00
		<u>\$8,165.00</u>		<u>\$5,475.00</u>		<u>\$27,548.00</u>		<u>\$33,134.00</u>

NUMBER OF ANIMALS DECLARED ON FUR FARMS IN ALBERTA

Kind of Animal	Season 1941-1942		Season 1942-1943		Season 1943-1944		Season 1944-1945	
	Total No. of Animals	Total Valuation	Total No. of Animals	Total Valuation	Total No. of Animals	Total Valuation	Total No. of Animals	Total Valuation
Fox, Silver	20,982	\$ 488,880.60	23,251	\$ 581,275.00	14,706	\$ 389,709.00	11,850	\$ 404,322.00
Fox, White Face Silver	.....	.....	.....	.....	6,744	259,644.00	9,639	439,731.18
Fox, Platinum	.....	.....	386	17,545.00	.....	.....	2,663	209,711.25
Fox, Pearl Platinum	.....	.....	111	8,325.00	1,401	126,090.00	.....	.....
Fox, Cross	.....	.....	.....	.....	.....	.....	214	21,400.00
Fox, Red	1,535	23,332.00	1,632	33,456.00	1,001	27,027.00	611	32,077.50
Fox, Blue	688	7,568.00	140	2,205.00	141	3,102.00	92	1,725.00
Mink, Standard	633	11,101.00	718	13,283.00	1,025	51,250.00	1,130	35,312.50
Mink, Silver Blue	.....	.....	.....	.....	87,490	2,318,485.00	104,516	2,905,544.80
Mink, Silver Sable	100,488	1,017,943.45	123,976	1,344,922.60	10	2,000.00	359	21,540.00
Mink, Blue Frost	.....	.....	.....	.....	99	17,325.00	.....	.....
Mink, Mutton	.....	.....	.....	.....	.....	.....	243	12,150.00
Lynx	4	180.00	8	360.00	12	660.00	126	4,725.00
Marten	66	2,640.00	83	2,905.00	93	6,510.00	6	750.00
Beaver	334	8,350.00	225	6,750.00	312	9,360.00	73	9,125.00
Chinchilla	.....	.....	.....	.....	69	6,900.00	175	7,875.00
Muskrat	5,469	11,375.52	3,823	9,537.50	6,283	18,849.00	136	34,000.00
Coyote	72	900.00	82	1,025.00	187	4,114.00	4,352	10,880.00
Fitch	381	476.25	318	318.00	173	346.00	55	440.00
Nutria	206	216.30	165	412.50	127	444.50	277	831.00
Raccoon	28	70.00	40	140.00	21	105.00	104	520.00
Badger	8	40.00	4	18.00	2	9.00	8	32.00
Rabbit	2,686	174.88	711	533.25	895	895.00	.....	.....
	133,600	\$1,573,248.00	155,653	\$2,018,030.85	120,791	\$3,242,824.50	136,629	\$4,152,692.23

FUR FARMS—EXEMPTIONS ISSUED

Kind of Fur	Season 1941-1942			Season 1942-1943			Season 1943-1944			Season 1944-1945		
	Total No. of Pelts	Total Value of Pelts	Total No. of Pelts	Total Value of Pelts	Total No. of Pelts	Total Value of Pelts	Total No. of Pelts	Total Value of Pelts	Total No. of Pelts	Total No. of Pelts	Total Value of Pelts	Total Value of Pelts
Fox, Silver	15,654	\$ 364,894.74	16,868	\$ 421,700.00	7,162	\$ 193,946.96	7,660	\$ 209,118.00	7,660	\$ 209,118.00		
Fox, White Face Silver					3,370	122,769.10	4,193	133,044.50	4,193	133,044.50		
Fox, Platinum					15	1,201.35	1,132	71,316.00	1,132	71,316.00		
Fox, Cross					334	6,513.00	494	17,290.00	494	17,290.00		
Fox, Red	1,219	18,540.99	1,632	33,456.00	334	6,513.00	59	885.00	59	885.00		
Fox, Blue	573	6,154.02	140	2,205.00	140	3,829.00	674	16,850.00	674	16,850.00		
Fox, Blue	532	9,028.04	535	9,897.50	66	1,331.88	166	415.00	166	415.00		
Fitch	170	212.50	232	232.00	154	192.50	61,317	1,364,303.25	61,317	1,364,303.25		
Mink, Standard	71,752	726,847.76	106,179	1,152,042.15	49,801	1,144,426.98	3	144.00	3	144.00		
Mink, Silver Blue							4	160.00	4	160.00		
Mink, Blue Frost							8	240.00	8	240.00		
Mink, Mutation							37	1,480.00	37	1,480.00		
Marten			4	140.00	29	1,596.74	12	360.00	12	360.00		
Beaver	68	1,691.20	157	4,710.00	15	519.15						
Chinchilla					5	77.50						
Rabbit	2,215	177.20	644	483.00	203	121.80						
Muskrat	4,558	9,480.64	2,738	6,845.00	242	513.04	451	1,104.95	451	1,104.95		
Coyote	308	3,863.40	48	600.00	142	2,323.12	11	82.50	11	82.50		
Nutria	81	40.50	55	137.50	18	45.00	19	85.50	19	85.50		
Raccoon			10	35.00	2	4.80						
Lynx					6	294.60						
	97,130	\$1,140,934.99	129,242	\$1,632,483.15	61,704	\$1,479,706.52	76,241	\$1,836,933.70	76,241	\$1,836,933.70		

NUMBER OF ANIMALS RETAINED FOR BREEDERS ON FUR FARMS IN ALBERTA

Kind of Animals	Season 1942-1943			Season 1943-1944			Season 1944-1945		
	Total No. of Animals	Value of Animal	Total Valuation	Total No. of Animals	Value of Animal	Total Valuation	Total No. of Animals	Value of Animal	Total Valuation
Badger	4	\$ 5.65	\$ 22.60	2	\$ 5.65	\$ 11.30	138	\$ 50.00	\$ 6,900.00
Beaver	68	37.50	2,550.00	297	37.50	11,137.50	4,181	40.95	171,211.95
Fox, Silver	6,383	31.25	199,468.75	7,544	33.12	249,857.28	5,443	45.62	248,309.66
Fox, White Face Silver	586	40.50	15,633.00	3,374	48.35	163,132.90	1,531	94.50	144,679.50
Fox, Platinum	111	95.00	10,545.00	1,386	114.00	158,004.00	213	125.00	26,625.00
Fox, Pearl Platinum							117	52.50	6,142.50
Fox, Cross	183			861	33.75	29,058.75	455	37.50	17,062.50
Fox, Blue		23.50	4,300.50	691	63.51	43,885.41	33	18.75	618.75
Fox, Red	8	56.25	450.00	75	27.50	2,062.50	6	125.00	750.00
Lynx	79	43.75	3,456.52	64	87.50	5,600.00	57	125.00	7,125.00
Marten	17,777	16.00	284,432.00	37,798	33.12	1,251,869.76	42,694	33.37	1,424,698.78
Mink, Standard							317	72.00	22,824.00
Mink, Silver Blue							205	60.00	12,300.00
Mink, Blue Frost							104	45.00	4,680.00
Mink, Mutation	1,085	2.50	2,712.50	6,041	3.75	22,653.75	3,901	2.50	9,752.50
Muskrat	34	13.75	467.50	45	27.50	1,237.50	44	8.00	352.00
Coyote	86	1.25	107.50	19	2.50	47.50	111	3.00	333.00
Fitch	110	3.25	357.50	109	4.38	477.42	85	5.00	425.00
Nutria	67	1.00	67.00	692	1.25	865.00	8	4.00	32.00
Rabbit	30	4.50	135.00	19	6.25	118.75	124	250.00	31,000.00
Raccoon				64	125.00	8,000.00			
Chinchilla									
	26,411		\$ 524,705.10	59,087		\$ 1,948,431.82	59,767		\$ 2,135,822.14

COMMERCIAL PRODUCTION OF FISH

Species	1941-42	1942-43	1943-44	1944-45
	Lbs.	Lbs.	Lbs.	Lbs.
Whitefish	2,296,676	1,916,496	2,374,532	2,655,016
Trout	32,393	18,556	21,716	21,492
Pike	495,167	504,674	585,519	430,150
Pickerel	265,636	254,337	840,164	994,659
Perch	46,958	75,816	128,628	152,643
Tullibee	2,470,412	3,324,864	3,596,665	3,319,306
Mixed Fish	312,857	64,140	210,297	152,105
Totals	5,920,099	6,158,883	7,757,521	7,725,371

LICENSES AND PERMITS

	1941-42	1942-43	1943-44	1944-45
Angling Permits (Seasonal)	6,510	5,537	5,920	6,296
Angling Permits (Limited)		327	460	355
Domestic Licenses	266	317	522	417
Fisherman's Licenses	1,437	1,571	2,868	3,323
Commercial Licenses	135	77	124	142
Motor Boat Licenses	12	3	4	6
Totals	8,360	7,832	9,898	10,539

NUMBER AND VALUE OF VESSELS, BOATS, FISHING GEAR AND EQUIPMENT

Vessels, Boats	1941-1942		1942-1943		1943-1944		1944-1945	
	No.	Value	No.	Value	No.	Value	No.	Value
Row	145	\$ 5,095.00	133	\$ 4,290.00	186	\$ 3,420.00	146	\$ 3,340.00
Gasoline	119	34,070.00	107	31,545.00	208	86,380.00	181	55,850.00
Diesel					1	5,900.00	1	5,900.00
Barges					3	16,000.00	3	16,000.00
	264	\$39,165.00	240	\$35,835.00	398	\$111,700.00	327	\$81,090.00
Piers and Wharves	42	\$44,100.00	43	\$54,100.00	9	\$ 4,474.00	29	\$ 5,040.00
Fish Plants and Ice Houses	15	10,850.00	17	11,350.00	33	20,197.00	127	42,245.00
Gill-Nets:								
May 16/Sept. 30 ...	2403	\$ 48,100.00	1755	\$35,100.00	4697	\$ 93,940.00	3803	\$65,360.00
Dec. 1/Dec. 31 ...	2149	42,980.00	2193	43,860.00	3665	64,970.00	2738	37,926.00
Jan. 1/Mar. 31 ...	5799	115,980.00	4937	98,740.00	8806	157,532.00	7043	92,888.00

QUANTITIES AND VALUE OF FISH CAUGHT AND MARKETED

Species	Period	Weight (lbs.)	Value to Fishermen	Value as Marketed
Whitefish	May 16/44 to Sept. 30/44	595,832	\$ 56,004.42	\$102,006.98
	Dec. 1/44 to Dec. 31/44	380,015	33,390.20	63,660.76
	Jan. 1/45 to Mar. 31/45	1,679,169	193,307.26	352,625.49
Trout (Lake)	May 16/44 to Sept. 30/44	Nil	Nil	Nil
	Dec. 1/44 to Dec. 31/44	Nil	Nil	Nil
	Jan. 1/45 to Mar. 31/45	21,492	\$ 2,579.04	\$ 4,728.24
Pickeral	May 16/44 to Sept. 30/44	782,257	\$ 35,674.07	\$ 93,886.84
	Dec. 1/44 to Dec. 31/44	109,098	5,302.05	12,577.18
	Jan. 1/45 to Mar. 31/45	103,304	8,173.90	17,045.16
Pike	May 16/44 to Sept. 30/44	93,932	\$ 2,147.99	\$ 6,146.72
	Dec. 1/44 to Dec. 31/44	77,105	2,636.86	5,571.20
	Jan. 1/45 to Mar. 31/45	259,113	8,891.58	25,911.30
Tullibee	May 16/44 to Sept. 30/44	2,354,661	\$ 35,980.77	\$ 96,140.61
	Dec. 1/44 to Dec. 31/44	221,212	4,773.78	10,298.92
	Jan. 1/45 to Mar. 31/45	743,433	17,546.22	50,081.04
Perch	May 16/44 to Sept. 30/44	58,082	\$ 3,086.41	\$ 5,797.70
	Dec. 1/44 to Dec. 31/44	12,689	632.81	1,262.70
	Jan. 1/45 to Mar. 31/45	81,872	6,967.81	12,280.80
Mixed Fish, Ling, Suckers	May 16/44 to Sept. 30/44	13,900	\$ 74.25	\$ 148.50
	Dec. 1/44 to Dec. 31/44	91,050	910.50	1,821.00
	Jan. 1/45 to Mar. 31/45	47,155	573.57	1,147.14
Totals for year 1944-1945		7,725,371	1,558.32	3,116.64
Totals for year 1943-1944		7,757,521	\$418,653.49	\$863,138.28
Totals for year 1942-1943		6,158,883	\$481,498.25	\$973,777.86
Totals for year 1941-1942		5,920,099	283,622.41	406,970.32
			198,400.58	437,137.38

DISTRIBUTION—WHITEFISH EGGS

Water Area:	Eyed Whitefish Eggs
Ironwood Lake	1,000,000
Lesser Slave Lake	25,690,000
McGregor Lake	2,000,000
Newell Lake	2,000,000
Whitefish Lake (62-13-4)	2,000,000
Total	32,690,000

DISTRIBUTION OF RAINBOW TROUT, 1944

	Yearlings	No. 4 Fing.	No. 3 Fing.
Tributary to Sheep River:			
Junction Creek	900	8,000	.....
Coal Creek	1,000	.....
Biscoby Creek	3,000	25,000
South Fork	450	5,000	10,000
Gorge Creek	8,000	10,000
North Fork	15,000	15,000
Sheep River	15,000	.....
Blue Rock Creek	10,000
Dyson Creek	10,000
Canyon Creek	10,000
Junction Creek (above Falls)	12,000	.....
Tributary to Highwood River:			
Flat (Trap) Creek	20,000	15,000
Highwood River	20,000
Etherington Creek	7,000
Cataract Creek	7,000
Ranger Creek	4,000
Round Creek	18,000	.....
Pekisko Creek	15,000	.....
Sullivan Creek	10,000	.....
Tributary to Athabaska River,			
Trout Creek	10,000
Sundance Creek	10,000	10,000
Hornback Creek	5,000	10,000
Wolf Creek	10,000
Obed Lake	15,000	.....
Sulphur Creek Dam	26,000
Mary Gregg Lake	15,000	.....
MacLeod River	20,000	10,000
Chance Creek	10,000
Upper MacLeod River	10,000
Sulphur Creek	8,000
Embaras Creek	5,000
Whitehorse Creek	6,000
Shaw Dams	5,000
Tributary to Bow River:			
Sibbald Creek	15,000
Jumping Pound Creek	15,000
Whiskey Creek	25,000	.....
Meadow Creek	24,300	.....
Kananaskis River	25,000
Kananaskis Lakes	30,000
Bolton Creek	10,000
Pocaterre Creek	15,000
Bragg Creek	15,000	10,000
Ranger Creek	10,000	.....
Prairie Creek	30,000	.....
Fish Creek	10,000
Bow River	16,400	50,000	.....
Elbow River	28,000	.....
MacLean Lake	3,000
Tributary to Willow Creek:			
North Fork	12,000
Big Jim Creek	4,000
Riley Creek	4,000
Nelson Creek	3,000
South Fork	7,000
Trout Creek	15,000	.....
Lyndon Creek	25,000	.....	.....
Tributary to Waterton River:			
Carpenter Creek	7,000
Drywood Beaver Dams	3,000
Yarrow Creek	4,000
Pine Creek	8,000
Cottonwood Creek	5,000
Drywood Creek	23,000
Waterton River Dams	10,000	.....
Lees Creek	1,000	.....	.....

DEPARTMENT OF LANDS AND MINES

	Yearlings	No. 4 Fing.	No. 3 Fing.
Tributary to Old Man River:			
Pincher Creek	1,500	.....	8,000
Mill Creek .....	.....	.....	7,000
Castle River	1,500	10,000	10,000
Crowsnest River .....	.....	10,000	10,000
Todd Creek .....	.....	.....	5,000
Waldron River .....	.....	.....	10,000
Beaver Mines Creek	2,500	.....	.....
Old Man River	1,500	.....	.....
Callum Creek .....	.....	10,000	.....
Livingstone River .....	.....	.....	20,000
Dutch Creek .....	.....	.....	2,000
Racehorse Creek .....	.....	.....	8,000
Cypress Hills:			
Grayburn Creek .....	.....	5,000	.....
Battle Creek .....	.....	5,000	.....
	50,750	442,300	546,000

EYED RAINBOW EGGS

Spray Lake	20,000
Elbow Lake	10,000
	30,000

LOCH LEVEN AND EASTERN BROOK TROUT

	Yearlings	No. 4 Fing.	No. 3 Fing.
North Raven River	10,000	.....	.....
South Raven River	15,000	.....	.....
Chambers Creek	3,460	.....	.....
Prairie Creek	3,500	.....	.....
Blackstone River	7,000	.....	.....
Rose Creek	500	.....	.....
Bearberry Creek	1,500	.....	.....
Holland Creek	1,000	.....	.....
Williams Creek	1,000	.....	.....
Spring Creek	3,000	.....	.....
James River	4,000	.....	.....
Beaver Creek	6,500	.....	.....
Little Red Deer River .....	.....	60,000	.....
Dog Pound Creek .....	.....	30,000	30,000
Kilini Creek .....	.....	18,000	.....
	56,460	108,000	30,000
Twin Lakes			
10,000 Eyed Lock Leven Eggs			
Windy Mountain Creek			
10,000 Eyed Lock Leven Eggs			
		20,000 Eyed Lock Leven Eggs	

LAKE TROUT

Sylvan Lake	100,000 No. 1 Fing.
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DISTRIBUTION OF ADULT PERCH

Gull Lake	25,000
Sylvan Lake	20,000
Hardisty Lake	20,000
Whitewood Lake	40,000
Nakamin Lake	16,000
Hastings Lake	21,000
	142,000

DISTRIBUTION OF EYED PICKEREL EGGS

Chin Lakes	935,000
Newell Lake	1,000,000
Johnson Reservoir	1,000,000
Taber Reservoir	170,000
	3,105,000

Mining Lands Administration

REPORT OF THE SUPERINTENDENT OF MINING LANDS,

H. H. SOMERVILLE

The fifteenth year of administration of the natural resources of the Province has now come to a close, and while the production of coal and petroleum was lower during the calendar year 1944 than for the year 1943, the revenue from mining lands for the fifteenth fiscal year was considerably above the revenue of any previous year.

It has been the practice in the past to give in our annual report production and value of Alberta's minerals produced during the calendar year, but for the calendar year 1944, only the following figures are now known; coal, 7,427,433 tons, valued at \$26,741,357; petroleum, 8,788,726 barrels, valued at \$14,468,061; natural gas, 38,533,636 thousands of cubic feet, valued at *\$1,926,682; and salt, 25,242 tons, valued at \$252,420.

Mineral rights, solid, liquid and gaseous, the property of the Crown in the right of the Province, are not sold, but are disposed of by lease, reservation, permit or grant for limited periods of time. The Division is responsible for the administration of regulations governing these rights on both Provincial and school lands. Revenue is obtained from fees, rentals, bonuses and royalties, which during the fiscal year amounted to \$1,788,556.21. The revenue from mining lands by fiscal years appears in a separate statement.

During the past 15 years several discoveries of oil were made in the Province.

Turner Valley Field.—Oil was discovered in this field in the year 1914, and while production was being taken from the naphtha and shallow limestone wells, it was not until June 16th, 1936, when Turner Valley Royalties No. 1 well came into production at a depth of 6,828 feet that the first crude oil in quantity was produced from the limestone. Since that time the field has been extended to the west and north, and by the close of 1944, 275 wells were on production and 73,707,960 barrels of oil had been produced.

Taber Field.—The discovery of oil in this field dates back to the year 1937 when Plains Petroleum Nos. 1 and 2 wells were drilled. The first well produced little oil, but the No. 2 well produced more than 40,000 barrels by 1943, when production ceased. In June, 1942, Taber Province No. 1 well, located about 2 miles southeast of the Plains wells, came into production at a depth of 3,181 feet, with a gravity of 18° to 19° A.P.I. Ten wells were producing at the close of 1944, and 292,210 barrels of oil have been recovered.

Princess Field.—A small amount of oil was produced in this field during the months of May and June, 1939, by Anglo-Canadian Steeveville No. 1 well. Three other wells were drilled in the area in 1940 and 1941, and production of 30,405 barrels was recovered before the wells ceased producing in 1943. Princess Steeveville Syndicate No. 1 well came into production at a depth of 2,567 feet in July, 1944, and produced 1,059 barrels by the close of 1944 from the Bow Island sand. The California Standard Company finished drilling its C.P.R. No. 8 well in this area at a depth of 3,983 feet in the Devonian limestone in September, 1944, the gravity of the oil being about 35°. This well produced 12,756 barrels by the end of the year, making a total production for the field of 44,735 barrels.

*Based on well-head valuation of 5c per Mcf.

Lloydminster Field.—Oil was encountered in this field in January, 1939, by Lloydminster Royalties No. 1 well at a depth of 1,929 feet, and while this well does not now produce, other drilling has been conducted in the area. The total production of the field to the end of 1944 was 11,825 barrels, the gravity of the oil ranging around 14°.

Vermilion Field.—Graham Norton No. 1 well, now known as Vermilion Consolidated Oils No. 2 well, encountered oil with a gravity in the neighbourhood of 14° in September, 1939, at a depth of 1,858 feet. Fifty-three wells were on production, and 417,750 barrels of oil had been produced by the end of 1944.

Conrad Field.—Conrad Province No. 2 well encountered production with a gravity of 25° at a depth of 2,963 feet in July, 1944, and before the end of 1944 Conrad Province No. 77-33-B was completed. By the end of that year both wells had produced a total of 24,733 barrels.

Jumping Pound Field.—In December, 1944, Shell Oil Company of Canada Limited completed its No. 4-24-J well in this area at a depth of 9,947 feet. The gravity of the oil was 48°, but the well will not be produced because of the heavy gas flow, excepting for fuel purposes for the drilling of other wells in the field.

Miscellaneous Fields.—The Wainwright field is still in production. The wells in the Red Coulee field were abandoned during the summer of 1944, and some production has been taken from Dina, Del Bonita, Tilley, Skiff, Moose Dome, Keho, Armelgra, Ram River and other areas. These fields by the end of 1944 had produced a total of 632,205 barrels.

In March, 1941, fourteen areas were created as Provincial reserves, but it was not until the first day of February, 1944, that regulations were established permitting disposal of the petroleum and natural gas rights in these areas. A reservation of the petroleum and natural gas rights requiring the drilling of a well, in an area of 21,930 acres in the Lucky Strike area, was offered for tender and sold on September 15th, 1944. The well drilled by the successful tenderer to a depth of 3,131 feet proved non-productive, and before the close of the reservation the entire area was applied for under Crown reserve petroleum and natural gas leases.

The date for commencement of drilling on petroleum and natural gas leases issued by the Province was extended for one year to April 1st, 1946, by Order in Council No. 1628-44 because of continued restrictions resulting from the war and the shortage of labour, materials and equipment.

In the fall of 1944, Vermilion Consolidated Oils Limited while drilling its No. 15 well in legal subdivision 6 of section 12, township 49, range 6, west of the fourth meridian, encountered a deposit of salt at a depth of 3,481 feet which continued in a comparatively pure condition for more than 400 feet. While this discovery has created considerable interest, no action has been taken to date for development.

During the year, 1,296 applications for mineral rights were made at the offices of the Mining Recorders at Edmonton, Calgary and Peace River which required the preparation of a similar number of files for the Division. Many inquiries were made as to the availability of mineral rights, mostly for petroleum and natural gas leases or reservations, by personal application or by correspondence. The Division dispatched a total of 19,719 letters during the year under review.

The natural resources of Alberta were transferred from the Dominion Government to the control of the Government of Alberta on October 1st, 1930,

and the following tabulation shows the numbers and acreages of the various leases issued from that date to March 31st, 1945.

MINING LANDS LEASES

Type of Lease	Active at date of transfer	Issued	Reinstated	Divided	Cancelled	Renewed	Active at March 31st 1945
Petroleum and natural gas	18,863	11,933	151	638	27,847	197	3,541
Petroleum and natural gas, crown reserve	5	20	.....	.....	25	.....	.....
Coal, provincial lands	620	543	2	6	656	178	337
Coal, school lands	60	38	1	.....	60	8	31
Quarrying	45	82	.....	.....	61	.....	66
Quartz mining	4	.....	.....	.....	.....	.....	4
Salt	1	1	.....	.....	1	.....	1
Bituminous sands	4	3	.....	.....	6	.....	1
Miscellaneous	1	4	.....	.....	3	1	1
Dredging	32	8	.....	.....	40	.....	.....
TOTALS	19,635	12,632	154	644	28,699	384	3,982

ACREAGE CONTAINED IN ABOVE LEASES

Type of Lease	Active at date of transfer	Issued	Reinstated	Cancelled	Renewed	Active at March 31st, 1945
Petroleum and natural gas	2,454,802	3,481,909	29,386	4,257,928	23,786	1,684,383
Petroleum and natural gas, crown reserve	6,160	22,561	.....	28,721	.....	.....
Coal, provincial lands	236,984	144,313	85	187,820	93,633	99,929
Coal, school lands	9,570	3,131	53	6,572	1,504	4,678
Quarrying	1,675	819	.....	1,079	.....	1,415
Quartz mining	182	.....	.....	.....	.....	182
Salt	200	6,721	.....	200	.....	6,721
Bituminous sands	3,952	5,897	.....	6,015	.....	3,834
Miscellaneous	3,560	345	.....	42	22	3,841
TOTALS	2,717,085	3,665,696	29,524	4,488,377	118,945	1,804,983
Dredging (in miles)	145	24	.....	169	.....	.....

STATEMENT OF BUSINESS TRANSACTED, 1944-45—PETROLEUM AND NATURAL GAS

	Number	Acres
Leases issued	1,274	1,096,512
Leases cancelled and relinquished	502	195,824
Leases reinstated	8	640
Drilling reservations granted	28	248,157
Drilling reservations cancelled and relinquished	22	194,143
Prospecting reservations granted	61	3,294,496
Prospecting reservations cancelled and relinquished	57	3,469,647
Fees, rentals and bonuses collected		\$661,030.36
Royalties collected		708,198.07
TOTAL		\$1,369,228.43

COAL

	Number	Acres
Leases issued on provincial lands	41	4,205
Leases cancelled and relinquished on provincial lands	32	2,212
Leases issued on school lands	4	210
Leases cancelled and relinquished on school lands	2	75
Domestic permits issued	19	.....
Fees and rentals collected		\$118,200.77
Royalties collected		273,230.51
TOTAL		\$391,431.28

QUARRYING

	Number	Acres
Leases issued	7	40
Leases cancelled and relinquished	3	30
Sand, stone and gravel permits issued	39	.....
Fees and rentals collected		\$ 1,476.98
Royalties collected		8,543.85
TOTAL		\$ 10,020.83

MISCELLANEOUS

	Number
Bituminous sands leases issued	3
Bituminous sands leases cancelled	1
Permits to collect bitumns issued	1
Alkali permits issued	1
Quartz mining claims granted	1
Quartz mining certificates of work issued	1
Powers of Attorney (quartz) filed	1
Placer claims granted	1
Powers of Attorney (placer) filed	1
Bar-digging permits issued	1
Salt leases issued	11
Geophysical licenses issued	11
Fees, rentals and royalties collected, \$17,875.67	

ASSIGNMENTS REGISTERED

Nature	Number
Petroleum and natural gas	892
Coal, Provincial lands	25
Coal, school lands	4
Quarrying	3
Miscellaneous	4
TOTAL	928

PETROLEUM AND NATURAL GAS

Development of Leases.—The regulations provide that approved expenditures incurred in exploratory and development work on petroleum and natural gas rights, acquired under lease or reservation, may be accepted in satisfaction of rentals which otherwise would be payable in cash. During the fiscal year under review, rentals due the Province amounting to \$1,015,431.90 were satisfied from such expenditures. A statement is given of the credits granted for geological and geophysical work and for drilling applied in satisfaction of rentals of petroleum and natural gas leases during the period of administration of the natural resources by the Province.

STATEMENT OF CREDITS GRANTED FOR GEOLOGICAL AND GEOPHYSICAL WORK AND FOR DRILLING APPLIED IN SATISFACTION OF RENTALS OF PETROLEUM AND NATURAL GAS LEASES

Fiscal Years	Rentals Satisfied	Fiscal Years	Rentals Satisfied
1930-31		1938-39	418,445.72
1931-32		1939-40	306,596.53
1932-33	\$ 36,147.31	1940-41	757,187.27
1933-34	178,148.11	1941-42	303,629.22
1934-35	129,691.62	1942-43	409,180.56
1935-36	487,832.50	1943-44	564,177.64
1936-37	386,702.91	1944-45	1,015,431.90
1937-38	240,667.53		

Disposal by Public Tender.—Bonuses amounting to \$54,128.98 were accepted during the fiscal year at sales by public tender of petroleum and natural gas rights.

Number and Area of Leases.—During the year, 1,274 petroleum and natural gas leases were issued covering an area of 1,096.512 acres, and at the close of the fiscal year a total of 3,541 leases were active containing an area of 1,684,383 acres.

Reservations.—Twenty-eight reservations comprising 248,157 acres of petroleum and natural gas rights were granted during the year requiring the drilling of a well. A reservation of this type may not comprise in excess of 10,000 acres and requires the drilling of a well to be commenced within sixty days of the date on which the reservation becomes effective. The drilling requirement was complied with on six of the reservations, and by the close of the fiscal year an aggregate footage of 24,159 feet had been drilled on these reservations. Sixty-one prospecting reservations were issued under the regulations governing the reservation of petroleum and natural gas rights for geological and/or geophysical examination during the year, covering an area of 3,294,496 acres. At the close of the year 13 drilling reservations covering 115,877 acres and 65 prospecting reservations were active containing an area of 3,702,363 acres.

A table is given showing the acreages issued under prospecting permits which were discontinued in 1937, and the acreages issued under prospecting reservations and drilling reservations.

TABLE SHOWING ACREAGE OF PERMITS AND RESERVATIONS GRANTED

Fiscal Years	Prospecting Permits	Prospecting Reservations	Drilling Reservations
1930-31			
1931-32			
1932-33	29,161		
1933-34			
1934-35			
1935-36	232,738		
1936-37	483,171		
1937-38	588,437	221,691	
1938-39		334,600	
1939-40		475,881	
1940-41		638,889	
1941-42		4,058,116	
1942-43		1,103,059	
1943-44		3,775,695	61,863
1944-45		3,294,496	248,157

COAL

New coal leases were granted for the extension of existing operations, for mines where the local market could not be economically supplied from operating mines in the vicinity, and in co-operation with the Emergency Coal Production Board, strip mining leases were issued for short terms in an endeavour to alleviate the shortage of coal caused by war conditions. In the fiscal year, 45 leases were issued containing 4,415 acres, being made up of new and renewal leases. There are now 368 active leases comprising 104,607 acres.

During the current fiscal year the following quantity of coal, subject to Crown royalty, was mined:

Provincial lands' leases	3,294,925
School lands' leases	439,074
Coal lands' and mineral sales	1,093,414
TOTAL	4,827,413

Crown royalties collected on coal mined in Alberta since April 1st, 1907, are as follows:

CROWN ROYALTIES COLLECTED ON COAL

Fiscal Year	Royalty Paid	Fiscal Year	Royalty Paid
1907-08	\$ 7,621.67	1920-21	\$ 190,545.80
1908-09	5,322.39	1921-22	185,436.88
1909-10	153,559.98	1922-23	171,723.83
1910-11	218,932.88	1923-24	210,389.53
1911-12	104,894.55	1924-25	148,979.10
1912-13	142,997.79	1925-26	188,277.94
1913-14	147,198.75	1926-27	218,150.10
1914-15	104,489.77	1927-28	231,757.96
1915-16	67,190.17	1928-29	254,616.27
1916-17	149,447.82	1929-30	248,083.71
1917-18	144,634.75	1930-31 (First half)*	90,052.07
1918-19	175,687.66		
1919-20	181,641.80		
			\$3,741,633.17
Provincial Lands School Lands			
1930-31 (Last half)*	\$105,126.51	\$ 5,014.29	110,140.80
1931-32	145,170.33	6,354.09	151,524.42
1932-33	143,800.01	4,971.78	148,771.79
1933-34	193,527.82	9,520.13	203,047.95
1934-35	176,122.43	12,365.39	188,487.82
1935-36	186,691.23	19,779.76	206,470.99
1936-37	175,214.33	18,596.00	193,810.33
1937-38	158,227.11	15,159.15	173,386.26
1938-39	143,070.78	9,270.23	152,341.01
1939-40	168,802.75	7,812.78	176,615.53
1940-41	200,045.68	15,841.24	215,886.92
1941-42	216,777.95	22,849.83	239,627.78
1942-43	235,613.19	24,700.43	260,313.62
1943-44	239,590.96	19,732.99	259,323.95
1944-45	251,136.50	22,094.01	273,230.51
TOTAL			\$6,694,612.85

*Date of transfer of Alberta's natural resources from federal to provincial control, and date also of the creation of the Department of Lands and Mines, Alberta, October 1st, 1930.

Permits for Domestic Use.—Permits to mine coal on Provincial lands by strip-mining methods for domestic use may be issued to actual settlers on payment of a fee of one dollar and royalty at the rate of ten cents a ton. Each permit expires on March 31st following its date of issue. During the year, 19 permits were issued authorizing an extraction of 214 tons, none of which could be bartered or sold.

QUARRYING

One quarrying lease was issued on surveyed lands containing an area of 40 acres, five leases were issued during the fiscal year for removing gravel from the bed of the North Saskatchewan River, and one was issued on the bed of the Oldman River. Extraction of 311,875 cubic yards of sand and gravel and 153,759 cubic yards of limestone and shale from Provincial lands was reported for the calendar year of 1944.

At the close of the fiscal year, 66 leases were active containing an area of 1,415 acres.

Permits.—Sand, stone and gravel permits are issued on the beds of rivers and lakes at a fee of \$2.50 and a royalty of five cents a cubic yard, and expire on the 30th day of November following the date of issue. In this fiscal year, 39 permits were issued for the extraction of 28,659 cubic yards.

QUARTZ

No new claims were recorded during the fiscal year. The claim in the Drumheller district for the recovery of bentonite was renewed, but no production was reported this year.

The four quartz leases covering 181.8 acres issued by the Department of the Interior are still active.

PLACER

One placer grant was issued for a claim staked along the Athabaska River in township 63, range 3, west of the 5th meridian.

BITUMINOUS SANDS

The lease in the McMurray area containing 3,834 acres on which Oil Sands Limited carried on experimental and development work at Bitumount is still active, and during the calendar year of 1944 it treated 2,500 tons of sands, recovering 2,350 barrels of bitumen. The Province has entered into an agreement for establishing an experimental plant for research purposes on a portion of this lease. Abasand Oils Limited continued its development and exploratory work at its plant on the bank of Horse River, and during the year treated 5,684 tons of sands and recovered 4,345 barrels of bitumen.

SODIUM CHLORIDE (Common Salt)

This fiscal year the salt plant operated by Industrial Minerals Limited reported extraction of 28,315 tons of salt, on which royalty at the rate of twenty cents a ton was collected. This plant is located on the lease issued in 1937 covering 6,720.82 acres.

A summary appears showing the salt production by fiscal years.

SALT PRODUCTION		Tons Produced
Fiscal Years		
1938-39	.....	5,420
1939-40	.....	2,508
1940-41	.....	11,720
1941-42	.....	19,016
1942-43	.....	20,672
1943-44	.....	17,425
1944-45	.....	28,315

MISCELLANEOUS LEASES

The lease covering an area of 22.5 acres for the removal of sodium sulphate (glauber salts) occurring in comparatively pure condition in sloughs and shallow lakes, was cancelled during the year and no production was reported.

SPECIAL PERMITS

The three annual permits for the collection of bitumen issuing from old wells in the Peace River district were again renewed. Collection of 1,531 gallons was reported during the year under review.

DRILLING STATISTICS

The drilling and production of petroleum and natural gas wells in the Province are administered by The Petroleum and Natural Gas Conservation Board, Calgary, Alberta, and particulars as to drilling activity and statistical data are included in its reports.

STATEMENT OF MINING LANDS REVENUE BY FISCAL YEARS
RECEIVED BY THE PROVINCE FOLLOWING OCTOBER 1, 1930

Fiscal Years	COAL				PETROLEUM AND NATURAL GAS				SALT				QUARRYING		DREDGING	SAND, STONE & GRAVEL		QUARTZ		PLACER & BAR-DIGGINGS		BITUMINOUS SANDS		MISCELLANEOUS		Provincial Lands	School Lands	TOTAL	Fiscal Years			
	Provincial Lands		School Lands		Provincial Lands		School Lands		Provincial Lands		School Lands		Provincial Lands		Provincial Lands	Provincial Lands	School Lands	Provincial Lands	School Lands	Provincial Lands	School Lands	Provincial Lands	School Lands	Provincial Lands	School Lands							
	Fees and Rentals	Royalties	Fees and Rentals	Royalties	Fees and Rentals	Royalties	Fees and Rentals	Royalties	Fees and Rentals	Royalties	Fees and Rentals	Royalties	Fees and Rentals	Royalties	Fees, Rentals and Royalties	Fees and Royalties	Fees and Royalties	Fees and Royalties	Fees and Royalties	Fees and Royalties	Fees, Rentals and Royalties	Fees, Rentals and Royalties	Fees, Rentals and Royalties	Fees, Rentals and Royalties	Total	Total						
1930-31	\$ 66,225.59	\$ 105,126.51	\$ 5,103.58	\$ 5,014.29	\$ 87,373.46	\$ 110,882.84	\$ 8,990.72	\$ 262.94						\$ 424.12	\$ 55.00	\$ 131.94				\$ 10.00		\$ 26.90		\$ 1,799.50		\$ 372,055.86	\$ 19,371.53	\$ 391,427.39	1930-31			
1931-32	132,415.11	143,170.33	5,788.21	6,354.09	57,868.87	106,103.05	8,455.94	383.60						2,155.37	214.38	588.23		\$ 205.00		50.00		49.80		1,228.20		446,048.34	20,981.84	467,030.18	1931-32			
1932-33	125,750.49	143,800.01	6,110.57	4,971.78	42,117.70	73,182.96	3,718.94	253.46						1,032.22	243.60	262.18		370.00		82.50				224.56		387,066.22	15,054.75	402,120.97	1932-33			
1933-34	120,977.90	193,527.82	5,463.01	9,520.13	81,540.10	73,548.27	12,099.71	333.64						1,727.87	214.38	374.90		230.00		294.50	\$ 30.00			373.48		472,809.22	27,446.49	500,255.71	1933-34			
1934-35	128,482.81	176,122.43	5,310.92	12,365.39	104,375.89	61,265.88	13,630.73	283.08						1,206.38	541.00	365.97	\$ 34.92	230.00		100.00				183.57		472,893.93	31,635.04	504,528.97	1934-35			
1935-36	117,741.55	186,691.23	5,398.41	19,779.76	115,593.55	117,468.36	10,875.87	699.33	\$ 699.96					1,201.94	\$ 209.00	535.00	734.07	41.80	2,105.00		95.88			36.60		42.99		543,154.83	36,805.17	579,960.00	1935-36	
1936-37	116,137.98	175,214.33	5,214.63	18,596.00	348,291.29	108,321.19	89,040.20	614.09	646.90	\$ 62.00				1,998.98	188.00	399.80	344.58	93.00	340.00		105.66			275.00		279.15	\$ 14.00	752,603.96	113,571.92	866,175.88	1936-37	
1937-38	114,984.69	158,227.11	4,824.02	15,159.15	284,844.04	249,266.53	35,355.10	24,257.57	511.10	10.50				1,577.94	790.16	200.00	942.90	167.75	233.53		55.04			1,877.07		304.37		813,824.98	79,763.59	893,588.57	1937-38	
1938-39	106,765.27	143,070.78	4,665.98	9,275.23	372,449.99	394,453.43	40,735.42	128,312.33	32.68	995.21				1,471.94	1,133.65	485.00	669.62	109.80	98.17		198.27			5,804.70	\$ 1.80	151.01		1,027,779.72	183,095.56	1,210,875.28	1938-39	
1939-40	111,287.05	168,802.75	4,900.47	7,812.78	340,687.68	408,304.20	37,117.62	115,002.11	32.56	540.22				1,335.15	1,213.75		3,003.43	68.00		83.48			205.63		7,973.70		488.43		1,043,958.03	164,900.98	1,208,859.01	1939-40
1940-41	85,445.98	200,945.68	4,191.79	15,841.24	229,844.78	411,963.65	36,296.74	111,371.14	57.56	2,120.10				1,253.95	996.62	135.00	3,694.63	129.25	132.72	\$ 10.00			366.20	20.00	3,986.85		329.93		1,068,617.14	141,025.92	1,209,643.06	1940-41
1941-42	80,560.44	216,777.95	4,269.87	22,849.83	189,436.95	570,604.94	25,382.21	88,293.81	43.50	3,711.16				1,412.99	1,523.48		1,975.10	170.20	246.72		187.98	60.00		1,806.00		5,020.07		1,211,222.31	107,861.78	1,319,084.09	1941-42	
1942-43	79,742.23	235,613.19	4,288.14	24,700.43	267,612.47	575,833.12	24,065.16	54,360.45	27,186.60	4,247.87				1,283.73	1,926.50		6,597.40	447.60	313.83		190.00			5,655.30		1,107,382.45		1,107,382.45	88,772.26	1,196,154.71	1942-43	
1943-44	88,289.67	239,590.96	5,071.19	19,732.99	239,584.05	503,525.82	16,747.75	46,862.33	13,441.64	3,379.66				1,516.68	3,718.90		5,471.40	358.00	196.22		140.00			3,834.40		3,620.91		1,658,998.41	129,557.80	1,788,556.21	1943-44	
1944-45	113,870.87	251,136.50	4,329.90	22,094.01	598,352.20	669,230.07	62,678.16	38,968.00	7,365.82	5,543.21	\$ 1,300.00			1,476.98	6,558.40		1,823.45	162.00	10.00												1944-45	
Totals	\$1,588,677.63	\$2,738,917.58	\$ 74,930.69	\$ 214,062.10	\$3,359,973.02	\$4,433,954.31	\$ 425,190.27	\$ 610,257.88	\$ 50,018.02	\$ 20,609.93	\$ 1,300.00			\$ 21,075.34	\$ 18,258.46	\$ 3,023.16	\$ 26,979.80	\$ 1,782.32	\$ 4,814.67	\$ 10.00	\$ 2,091.66	\$ 130.00	\$ 31,326.32	\$ 27.53	\$ 18,825.30	\$ 14.00	\$12,318,545.20	\$1,327,704.79	\$13,646,249.99	Totals		

Technical Division

REPORT OF THE SUPERINTENDENT OF THE TECHNICAL DIVISION, T. W. DALKIN

The crash of the stock market in 1929 was already history and a world-wide depression was gradually but surely enveloping the West. It was at such a time that the Natural Resources were returned to the Province of Alberta from the Dominion of Canada on October 1st, 1930. Conditions became steadily worse, unemployment was rampant, the youth of the nation was "riding the rods", relief was no longer charity, it was commonplace. Then as the country was slowly emerging from this great depression in 1939, Hitler's hordes started a march of aggression upon the smaller nations of Europe, signaling the opening of World War Two and involving once more Britain and the Empire Nations, and later, the United States and Russia, against Germany, Italy and Japan, known as the Axis. There followed the most gruesome slaughter of human lives and awesome destruction of property the world has ever known by the most ingenious weapons of war by sea, land and air. The scientific progress of aviation and the new invention of jet propulsion made the world unbelievably small, and scarcely any place was safe from attack. Mercifully, this part of the world was spared these horrors, but it is against such a background of world shaking events that the administration of our Natural Resources for the past fifteen years is reviewed, and it is whilst World War Two is raging at its height and the nations of the world are locked in deadly battle for survival that the fifteenth annual report is written.

It was on the upper floor of the Land Titles Office Building, fifteen years ago, that the Department of Lands and Mines opened for business with a small organization staff under the direction of Mr. John Harvie from Ottawa, who is now our Deputy Minister. Carloads of Dominion records, files and documents began to roll out to the west from Ottawa, and soon the staff with its equipment overflowed its allotted space, while the Registrar of the Land Titles Office benevolently but rather reluctantly condoned the situation until March, 1931, when the new Administration Building on 109th Street was declared ready for occupancy. The Lands and Mines Department, which also included the old Dominion Land Agency with offices in the Blowey-Henry Building, moved into the two top floors of the Administration Building, with the Petroleum and Natural Gas Division located in a wing of the ground floor. With the continued steady growth of the Department, every corner is filled to capacity, and although the Mines Branch has been moved to the Provincial Building downtown, it is quite evident that provision must be made in the immediate future for further expansion. Dead ends of corridors have been converted into office space and counters to accommodate the public have been erected in the hall, and under the circumstances, it would not seem unreasonable to expect that consideration should be made in the immediate future for the construction of two additional floors on top of the Administration Building.

Notifications—Land Patents.

Well over one-quarter of a million acres of Provincial and School lands were patented during the last fiscal year, and whilst there was a decrease in the area of homestead lands as compared with the previous year, the area of school land disposed of by sale more than compensated for this deficit, due to the fact that the farmers paid off their indebtedness on their agreements of sale, which, in a measure, reflects the general prosperity now prevailing in rural areas.

DEPARTMENT OF LANDS AND MINES

NOTIFICATIONS ISSUED DURING THE FISCAL YEAR
April 1st, 1944, to March 31st, 1945

Classification	Notifications	Area (Acres)
Homesteads	948	145,824.277
Sales (including lots in subdivisions)	186	12,042.745
Second homesteads	98	14,598.34
Soldier grants	8	1,255.78
Purchased homesteads	1	157.61
Pre-emption Sales	2	320.00
Special grants	14	459.14
Transfers of land	4	320.83
Revival of titles	3	481.00
Exchanges of land	6	331.32
Exchanges of land (Special Areas)	19	58,356.10
Certificates of tax sale redemption	6	960.00
School lands' sales	364	61,271.905
School lands' grants	4	14.43
TOTALS	1,663	296,393.477

DETAILS OF SALES IN SUBDIVISIONS WHICH ARE INCLUDED IN THE
186 NOTIFICATIONS REFERRED TO ABOVE

	Notifications	No. of Lots	No. of Blocks
Barnwell, Plan 3105 Y.	1	4	....
Benton, Plan 5705 C.S.	1	1	....
Bindloss, Plan 7142 A.W.	1	1	....
Bodo, Plan 5201 E.O.	1	1	....
Calgary, Mission Plan 3920 E.X.	1	2	....
Canmore, Plan 39 Gen.	5	5	....
Cardston, Plan 4180 A.L.	1	7	....
Cardston, Roanoke Heights, Plan 724 A.Y.	1	18	....
Coleman, Plan 6808 C.U.	2	4	1
Compeer, Plan 1335 B.A.	2	2	....
Donnelly, Plan 204 C.L.	2	5	....
Drumheller, Plan 2193 C.C.	1	1	....
Jarvie, Plan 37 Gen.	2	3	....
Kipp, Plan 605 A.E.	1	1	....
Maple Leaf, Plan 6632 Y.	1	1	....
Maple Leaf, Plan 2107 A.A.	1	1	....
Manville, Plan 2574 P.	1	2	....
Morningside, XVIII	1	2	....
Oyen, Swenson Plan 3732 C.D.	1	1	....
Orion, Plan 7415 B.O.	2	3	....
Peace River Landing Settlement, Plan 5617 B.K.	2	8	....
Retlaw, Plan 7285 A.Q.	1	2 1/2	....
Richdale, Plan 6978 A.W.	1	1	....
Sedalia, Plan 2887 D.N.	2	3	....
Seven Persons, Plan 610 W.	1	1	....
Sunnynook, Plan 4045 C.O.	1	1	....
Travers, Plan 927 A.Y.	1	1	....
Waiparous, Plan 3046 E.X.	4	8	....
Wardlow, Plan 1703 C.P.	2	3	....
TOTALS	44	93	....

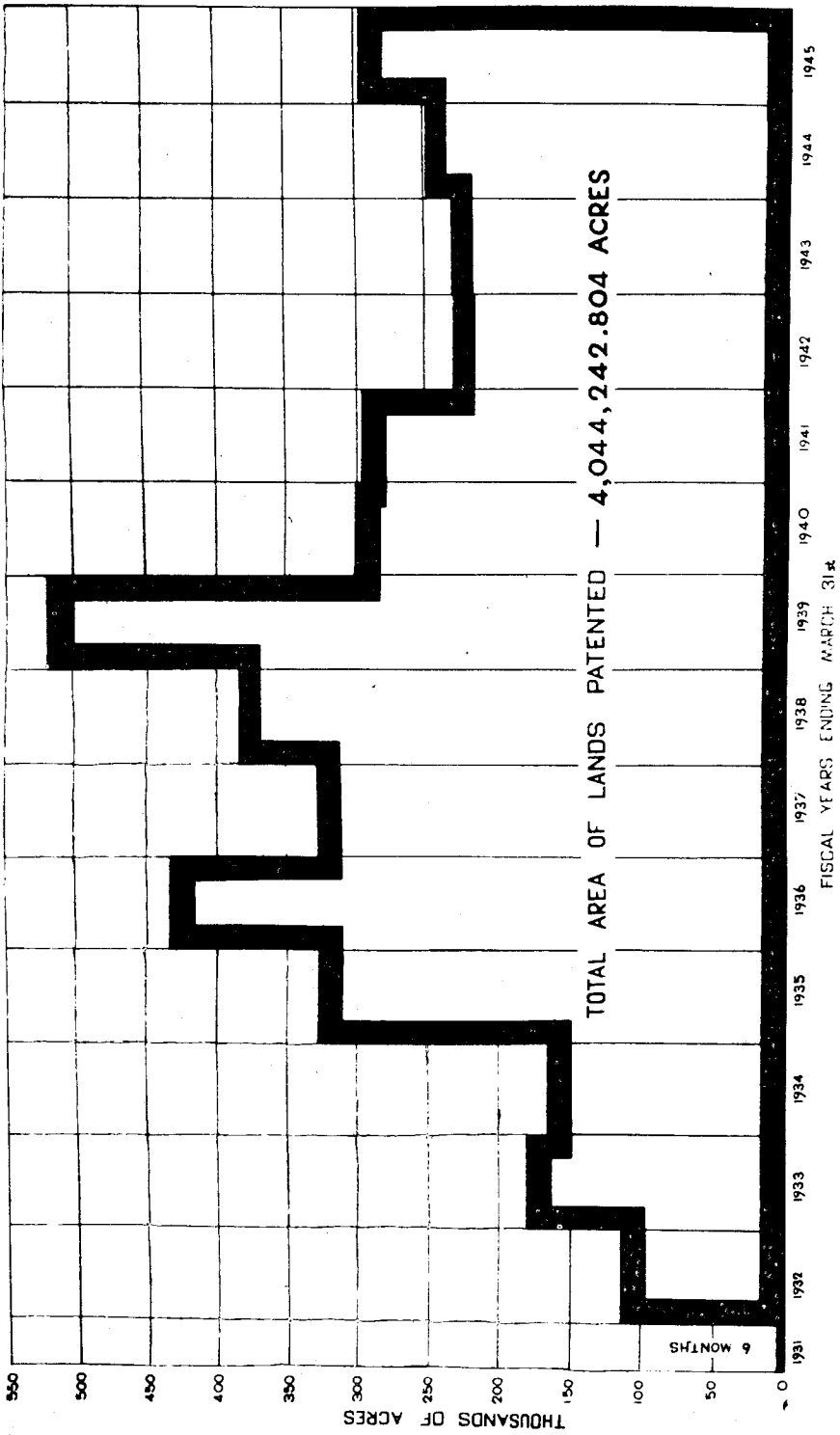
School Land Sales included in the 364 Notifications referred to above:

McLennan Townsite, Plan 1394 E.U.	7	10	....
Drumheller, Plan 2193 C.C.	3	3	....
Venice, Plan 6036 E.T.	1	1	....
TOTALS	11	14	....

Transfers of Land included in the 4 Notifications referred to above:

Millicent, Plan 1394 B.A.	1	3
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CHART SHOWING ACRES PATENTED
FROM OCTOBER 1st 1930 TO MARCH 31st 1945



NOTIFICATIONS ISSUED FROM OCTOBER 1st, 1930, TO MARCH 31st, 1945, IN THE
SUBDIVISIONS SHOWING NUMBER OF NOTIFICATIONS, LOTS AND
BLOCKS INVOLVED

Fiscal year ending March 31st	No. of Notifications	Lots	Blocks
October 1st, 1930, to March 31st, 1935.....	.....	.....	.....
1936.....	35	83½	.....
1937.....	82	127½	1
1938.....	56	101	.....
1939.....	42	68	1
1940.....	40	152	.....
1941.....	43	59	1
1942.....	25	35	.....
1943.....	133	192	1
1944.....	52	116	.....
1945.....	56	110	1
TOTAL.....	564	1,044	5

Reference to Schedule A will show that the contracts for 364 such school lands sales, aggregating over 61,000 acres and 186 other sales with a total of over 12,000 acres, were completed.

Over four million acres of Provincial and School Lands have been patented by the Province, and at this point, the following review over the last fifteen years is appropriate. For this purpose, Schedule A has been prepared, from which it will be seen that homesteads, of course, easily led the field with 2,656,950.39 acres, and second homesteads with an area of 718,669.36 acres trailing far behind in second place. The policy of filing on homesteads was, as is generally known, discontinued on March 25th, 1939, after much serious consideration had been given to the growing number of cancellations, signifying that a large number of the settlers had failed in their efforts to wrest a living from the land.

On the ninth line in Schedule A, it will be seen that well over 236,000 acres of School Lands have been paid for, whilst the small area of 1,442.81 acres for railway grants shows that the era of railway gangs forging a steel highway through the virgin prairie lands and forests has, for the time being, vanished. Indeed, elsewhere in the pages of previous reports there can be read the somewhat tragic story where railway tracks have been abandoned and the steel torn up, but it should be added that in many cases this was due to the fact that the Railway Companies have no longer the monopoly on transportation, and in this age of competition, motor bus lines have made inroads on the railway economy. Such competition, however, is only possible where standard highways are built by the Province. How often is one reminded that history repeats itself, and it may be a safe prophecy to make that in the not too distant future the sound of sledge hammers against the steel spikes will echo once more through the land, building railways on and on to the untapped resources of this great Province.

Fourth from the bottom in Schedule A is an area of 73,524.71 acres under the heading of "Exchange of Land—Special Areas." This policy started in 1942 when settlers in the drouth ridden areas were permitted to exchange lands for Crown lands. Such a policy permitted the settlers to consolidate their holdings, to obtain more productive or suitable lands, to be near a school or to be near highway or railway facilities. More information, however, in this regard appears later in this report.

A review over the last decade and a half of the special grants may now be worth while. In Schedule A, there is listed a total of 683 such grants containing 115,744.15 acres. The first big jump in area in these grants comes in 1935, and turning up the files, a grant to the Dominion of Canada is responsible, whereby, upon representations made to the Department by the Minister of the Interior, 40,550 acres located in the Forest Reserve south of Kananaskis, now known as the Kananaskis Forest Experiment Station, were transferred to the Dominion in

NOTIFICATIONS ISSUED FROM OCTOBER 1st, 1930, TO MARCH 31, 1945, SHOWING NUMBER OF NOTIFICATIONS ISSUED AND AREA IN ACRES

Fiscal Years ending March 31,	1931		1932		1933		1934		1935		1936		1937		1938		1939		1940		1941		1942		1943		1944		1945		Total	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Homesteads	11	1,755.94	632	99,261.66	1,012	159,513.38	841	131,955.01	1,155	181,627.08	1,597	250,629.72	1,318	207,170.26	1,462	228,067.38	1,741	362,757.32	1,390	215,485.82	1,380	208,562.25	1,066	165,717.85	924	142,577.07	1,014	156,045.37	948	145,824.28	16,491	2,656,950.39
Sales	6	535.07	24	855.44	69	1,886.10	43	2,963.71	51	1,500.00	93	2,121.55	129	2,327.95	105	2,120.09	94	2,665.72	90	1,806.35	99	4,642.67	84	4,140.85	90	3,435.61	139	9,595.21	186	12,042.75	1,302	52,639.07
Second Homesteads .....	.....	.....	.....	.....	2	319.00	104	16,202.71	506	80,125.18	964	150,874.67	546	84,970.01	506	78,157.49	533	80,795.81	380	58,423.40	382	57,748.33	258	39,172.58	192	29,044.44	182	28,237.40	98	14,598.34	4,653	718,669.36
Soldiers Entries .....	.....	.....	49	7,332.00	61	10,191.39	46	7,257.82	81	13,587.30	139	21,742.25	81	12,377.18	43	7,078.80	52	7,875.01	49	7,631.92	47	7,401.80	23	3,624.41	19	2,950.71	14	2,104.60	8	1,255.78	712	112,410.97
Purchased Homesteads .....	.....	.....	.....	.....	2	316.90	1	111.10	3	457.81	1	160.00	.....	.....	1	132.91	.....	.....	1	160.00	2	319.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pre-emptions .....	.....	.....	3	480.00	7	1,120.00	3	480.00	6	926.70	6	959.00	3	475.28	3	481.00	2	317.00	.....	.....	2	318.00	.....	.....	2	320.00	2	320.00	2	320.00	39	6,196.98
Special Grants	2	86.70	15	369.26	18	162.31	24	1,827.93	52	40,806.56	87	728.46	94	13,154.96	51	52,701.88	49	599.32	51	1,052.70	37	543.30	26	982.12	128	464.96	35	1,804.55	14	459.14	683	115,744.15
Exchange of Lands .....	.....	.....	.....	.....	7	1,108.05	5	826.12	4	1,121.00	1	315.00	4	780.50	10	3,800.88	4	6,820.05	3	639.00	3	2,788.35	5	643.00	4	334.00	3	10,373.80	6	331.32	59	29,881.07
School Lands Sales	3	481.00	34	2,937.59	54	4,051.36	34	3,595.05	56	4,459.14	74	5,986.81	40	2,426.33	73	9,650.95	378	55,215.50	113	15,758.49	92	12,370.94	64	9,813.46	106	15,448.55	224	32,995.02	364	61,271.50	1,709	236,461.99
Quit Claims .....	.....	.....	1	8.62	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	80.00	.....	.....	.....	.....	.....	.....	.....
Railways Sales	1	161.00	26	179.90	.....	.....	5	5.10	1	.62	3	11.67	9	87.50	1	.02	3	15.81	8	30.34	3	9.03	6	10.41	.....	.....	.....	.....	.....	.....	66	511.40
Railway Grants .....	.....	.....	.....	.....	28	218.74	.....	.....	.....	.....	.....	.....	7	1,845.50	10	31.03	12	43.34	6	20.94	6	1,152.80	3	59.94	.....	.....	.....	.....	.....	.....	38	1,442.81
School Land Grants .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	160.00	1	240.10	1	80.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	54	2,001.98
North-West Half-breed Grants .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	480.10
Exchange of License of Occupation .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	89.03	2	333.56	4	86.91	.....	.....	.....	.....	.....	.....	.....	.....	9	509.50
Release of Habendum Clause .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Exchange of Land (Special Areas) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Revival of Titles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Certificate of Tax Sale Redemption .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Transfer of Lands .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	23	3,019.71	784	111,424.47	1,260	178,887.23	1,106	165,224.55	1,915	324,611.39	2,965	433,529.13	2,231	325,615.17	2,266	382,382.43	2,874	517,435.89	2,097	301,431.97	2,058	295,649.12	1,563	229,566.61	1,516	229,699.52	1,660	249,371.90	1,663	296,393.48	25,981	*4,044,242.77

In addition to the above Notifications there was an Exchange of Mineral Rights, in the Fiscal Year 1938, for which one Notification was issued containing 310.00 acres.
*The total area on Schedule A is 0.034 of an acre less than that on the chart showing acres patented. This is due to the fact that the yearly totals on Schedule A were calculated to the nearest hundredth of an acre, whereas on the chart showing acres patented, the yearly totals were taken to thousands of an acre.

order to carry out scientific work in silviculture and to investigate other phases of forestry such as protections, mensuration and the effects of forests on stream flow and watersheds. From these lands were reserved all mines and minerals and subject to the following Habendum Clause:

" . . . if the Grantee, His Successors or Assigns, shall fail to use continuously the said parcel or tract of land herein before described solely for experimental purposes, then in such case these presents and the grant thereby made, shall immediately become and be null and void, and shall immediately revert to and become vested in Us, Our Successors and Assigns, without notice of any nature whatsoever."

In view of a proposed project by the Calgary Power Company to construct a dam in this area for power purposes, an interesting situation arises, but it is clearly established as to the rights of the Dominion Government in the Habendum Clause quoted above.

Included in the area of 52,701.88 acres of the special grants in 1938, 52,398.20 acres, excepting mines and minerals, were set aside and title vested in the Dominion of Canada as represented by the Minister of Mines and Resources. Under Clause 10 of the agreement between the Dominion and Provincial Governments, dated 14th December, 1929, relating to the transfer of Natural Resources, the Superintendent General of Indian Affairs made application for this area to fulfil the Dominion's obligation to the Chipewyan Indians. This area is divided into eight Indian Reservations and are officially known as 201, 201A, 201B, 201C, 201D, 201E, 201F and 201G. These Reservations are located at different intervals along the Athabaska River from township 102 northerly to the main reservation where the Athabaska River enters Lake Athabaska.

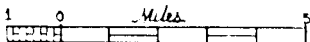
In June, 1943, a special grant was issued for an addition to the Janvier Indian Reserve No. 194 containing 514 acres, more or less. This area is located on the shore of Bohn Lake in township 80, range 5, west 4th meridian. All mines and minerals were reserved, and this brought a protest from the Dominion Government, claiming that the Province did not act properly in the matter of reserving unto itself these mines and minerals, contending that Indians under the Treaty are entitled to full ownership of the lands, including the minerals. The question of reserving mines and minerals under lands granted by the Province for Indian Reservations or additions thereto, is now receiving the consideration of the Government, but under The Provincial Lands Act, it has no authority to dispose of mines and minerals in any manner whatsoever except by lease.

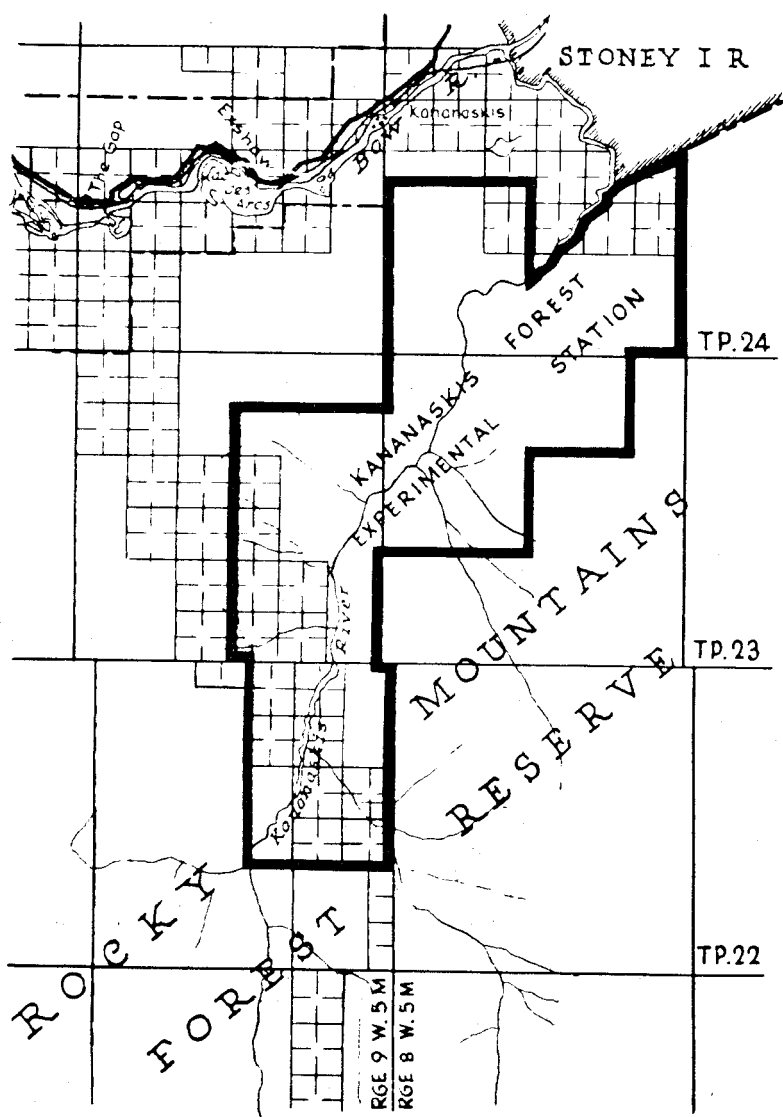
In reviewing the special grants issued by the Province, perhaps it may be permissible to digress and now refer to other areas for which application has been made by Canada for Indian Reservations and which are now under consideration.

(1) *Portage La Loche Indian Reserve—Garson Lake* Representations in the first place were made by the Hon. T. A. Crerar in 1939 to acquire 5,056 acres in Alberta, a similar area in Saskatchewan adjoining this area having received the approval of the Saskatchewan Government. Apart from entering a provisional reservation in the records against the unsurveyed lands in townships 84 and 85, range 1, west 4th meridian, no further action has been taken in connection with this application as it is apparently the intention of the Dominion Government to make an actual examination and selection of land before executing the survey.

(2) *Additional Lands required for the Wabiskaw Band of Indians.* In 1937 the Director of Indian Affairs made application on behalf of the Wabiskaw Indians for the selection and survey of a tract of land to which the band is

Map
Showing
 BOUNDARIES OF THE KANANASKIS
 FOREST EXPERIMENTAL STATION

Scale  Miles



entitled from lands along Hoole Creek in townships 79 and 80, ranges 25 and 26, west 4th meridian and adjoining the present Indian Reserve No. 166A. A plan of survey was submitted, showing that an area of 14,434.10 acres, more or less, had been selected, although Ottawa claims that this band of Indians is actually entitled to 31,733 acres. It might be added that certain lands in the proposed area were already alienated, and a question has arisen in connection with the statutory road allowances, rivers and water areas within the proposed addition which are over and above the 14,434.10 acres. The statutory road allowances are under the administration of the Public Works Department, and it is understood that the Director of Surveys is not in favour of accepting the new plan of survey, showing only the outer boundaries and nullifying the subdivision surveys which show the topographical features, the water areas and Willow River. This Department is in full agreement with the Director of Surveys, and this application is still open for settlement.

(3) *Stony Indians at Morleyville Reserve.* Also in 1937, the Director of Indian Affairs made application to the Province to acquire by purchase or otherwise, adjoining properties to the present Indian Reserve. An examination of our records, however, reveals that there is only the odd quarter section in the vicinity of the Morleyville Reserve that can be made available.

(4) *Addition to Beaver Lake Indian Reserve No. 131.* In 1942, the Director of Indian Affairs made application to acquire additional lands to this Indian Reserve, located on the shore of Beaver Lake in township 66, range 12, west 4th meridian. As an island is involved in this application and following a long established policy, there is some reluctance on behalf of the Government to make any disposal of any islands, and as the Indians are not entitled to any more land at this location, this application has been held in abeyance.

(5) *New Indian Reservations—John O'Chase Band and Chief Sunchild Band.* As a result of an application from the Hon. T. A. Crerar, Minister of Mines and Resources, reservations have been entered in the records and arrangements have been made by the Dominion Government to make a survey of these two new Indian Reservations, which are located north-west of Rocky Mountain House and just south of the junction of the Brazeau and Nordegg Rivers. The Chief John O'Chase Reservation will contain about 34,000 acres and the Chief Sunchild Reservation will contain about 13,000 acres.

Quite a large proportion of the balance of the special grants include church sites, cemetery sites and school sites. The Province adopted the policy of the Dominion Government in the disposal of such sites, but it soon became evident that as far as school sites were concerned, this was not looked upon with favour by the educational authorities throughout the Province, and due to the innumerable protests being received from the School Districts declaring their inability to purchase the sites on account of the hard times through which the Province was passing, it was obvious that this policy must be reviewed. As a result, an Order in Council was passed on January 2nd, 1935, dispensing with the fee of \$10.00 an acre, and since that day all grants of land for school sites have been made free of charge. There is also no charge for the incidental work in dealing with such applications, the only cost to the School Districts or School Divisions being a \$5.00 registration fee to insure the registration of the Notification and the issue of Certificate of Title in the Land Titles Office. After the passing of this Order in Council there was a large volume of applications to deal with, as many school sites had been established and schools were operating, but Notifications had not been issued, due to the refusal or the inability of the authorities to purchase the land.

Whilst the Province has disposed of by Notification over four million acres of land, it must be recorded that almost three and one-half million acres were

PLAN
Showing
**LANDS SET ASIDE FOR PROPOSED INDIAN
RESERVES SUBJECT TO A SURVEY UPON
THE GROUND**

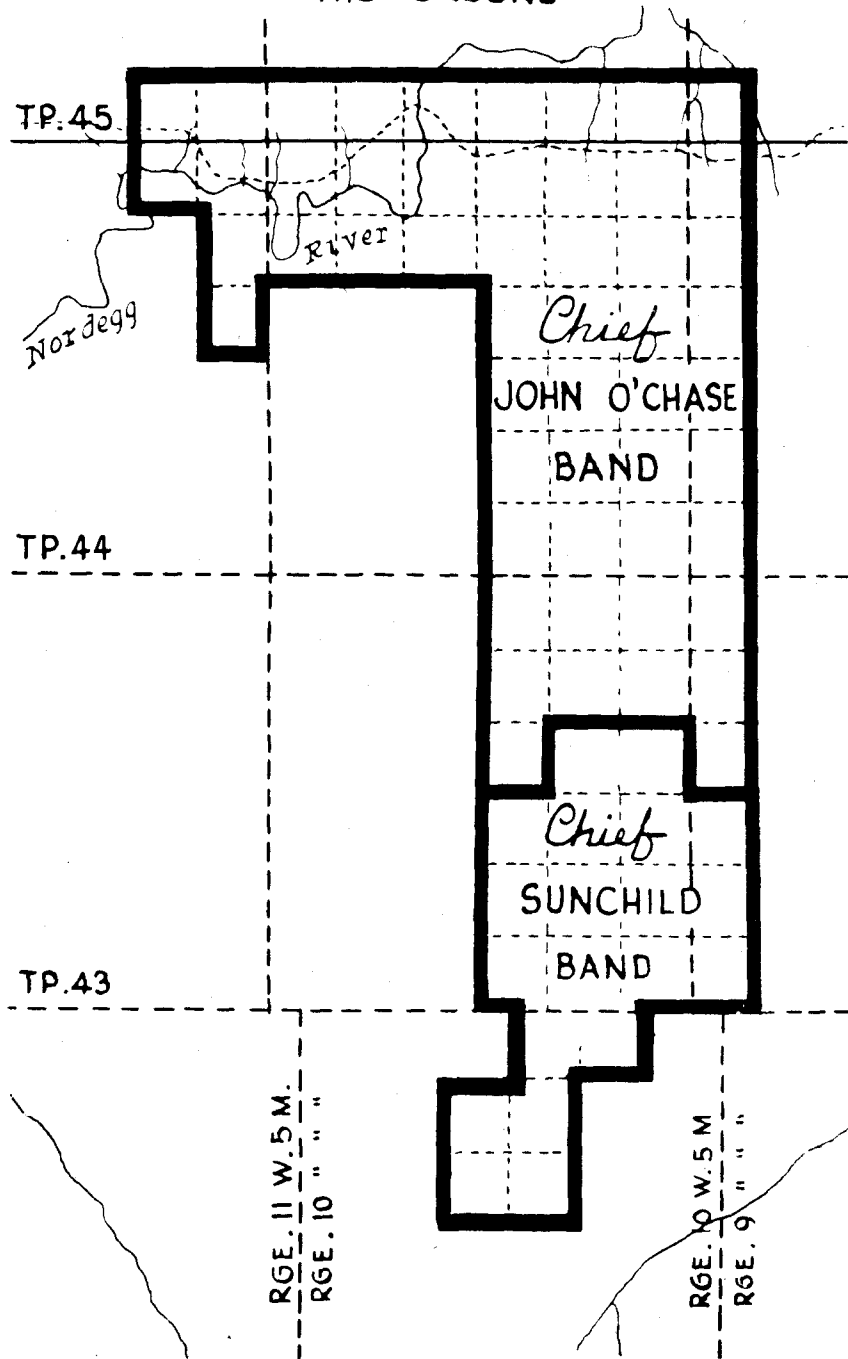
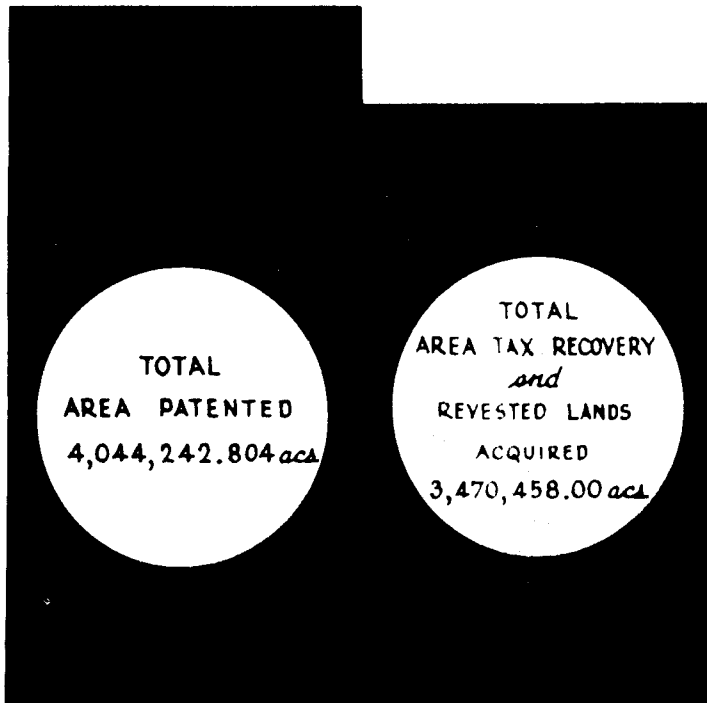


CHART
Showing
 AREA OF LANDS DISPOSED OF AND ACQUIRED DURING
 THE LAST 15 YEARS



acquired during the last fifteen years by the Province through Tax Recovery and Revestment. This area does not really reveal the true picture, as the Department of Municipal Affairs still continues to acquire lands through Tax Recovery. It will, therefore, be seen from the following chart that the Province has disposed of by Notification, only a little more than half a million acres of land over the area acquired through Tax Recovery and Revestment.

A glance at the following table will show that by far the greatest area of land was acquired in the Special Areas:

TAX RECOVERY AND REVESTED LANDS (INSIDE SPECIAL AREAS)			
As of March 31, 1944	Acres	From April 1, 1944, to March 31, 1945	Total to March 31, 1945
		Acres	Acres
Tax Recovery	2,145,688.33	92,244.03	2,237,932.36
Revested	55,858.34	19,281.26	75,139.60
Total	<u>2,201,546.67</u>	<u>111,525.29</u>	<u>2,313,071.96</u>

(OUTSIDE SPECIAL AREAS)			
As of March 31, 1944	Acres	From April 1, 1944, to March 31, 1945	Total to March 31, 1945
		Acres	Acres
Tax Recovery	570,443.24	153,555.16	723,998.40
Revested	432,917.03	470.70	433,387.73
Total	<u>1,003,360.27</u>	<u>154,025.86</u>	<u>1,157,386.13</u>
Minerals only			47,662.77

As is generally known, the boundaries of the Special Areas have been changed from time to time, and in computing these areas the boundaries as established on March 31st, 1945, were taken into consideration.

With reference to the changing of the boundaries of the Special Areas, inserted in this report is a map showing the boundaries of the Special Areas and the various changes subsequent to the passing of The Special Areas Act for 1939.

From time to time applications are received to extend the boundaries of the Special Areas, and whether justified or not, it is generally not realized the amount of work that is involved in the transfer of files, accounts and alteration of plans, etc.


As already pointed out, most of the lands acquired through Tax Recovery are in the Special Areas, and to show the gradual emergence from private ownership to the Crown, maps of the Special Areas are again inserted.

A glance at these maps will show that there are now large solid blocks composed of unpatented Crown lands and Tax Recovery lands in the Special Areas.

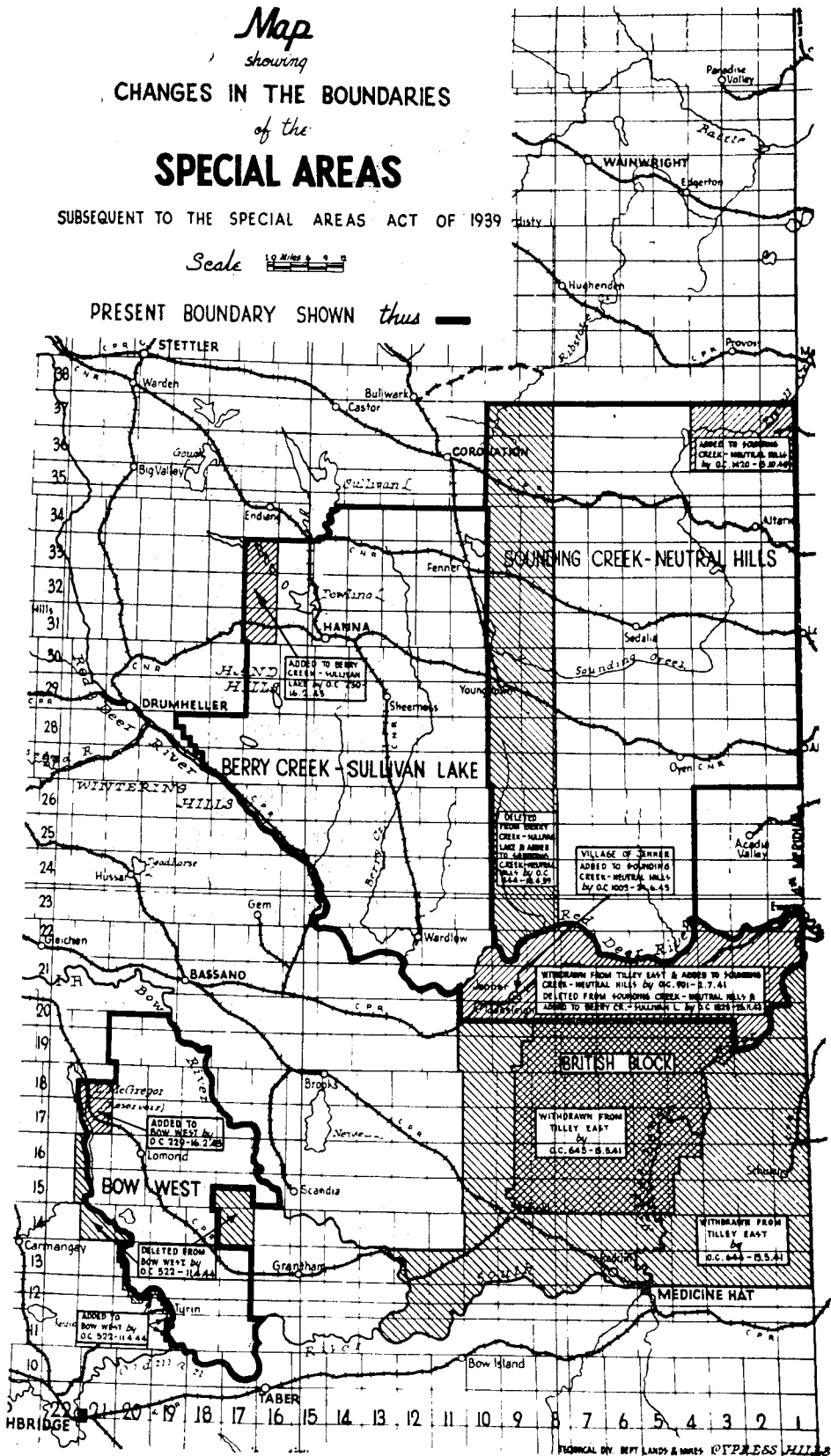
The settlers of the Special Areas still continue to avail themselves of the privilege of exchanging their privately owned lands for available Crown lands. On page 131 are recorded sixteen exchanges, all of which were approved to enable the settler to more economically farm the lands due to the consolidation of his holdings, the only exception being that of a settler whose application was granted due to the fact that he moved his business from Sunnynook to Cessford.

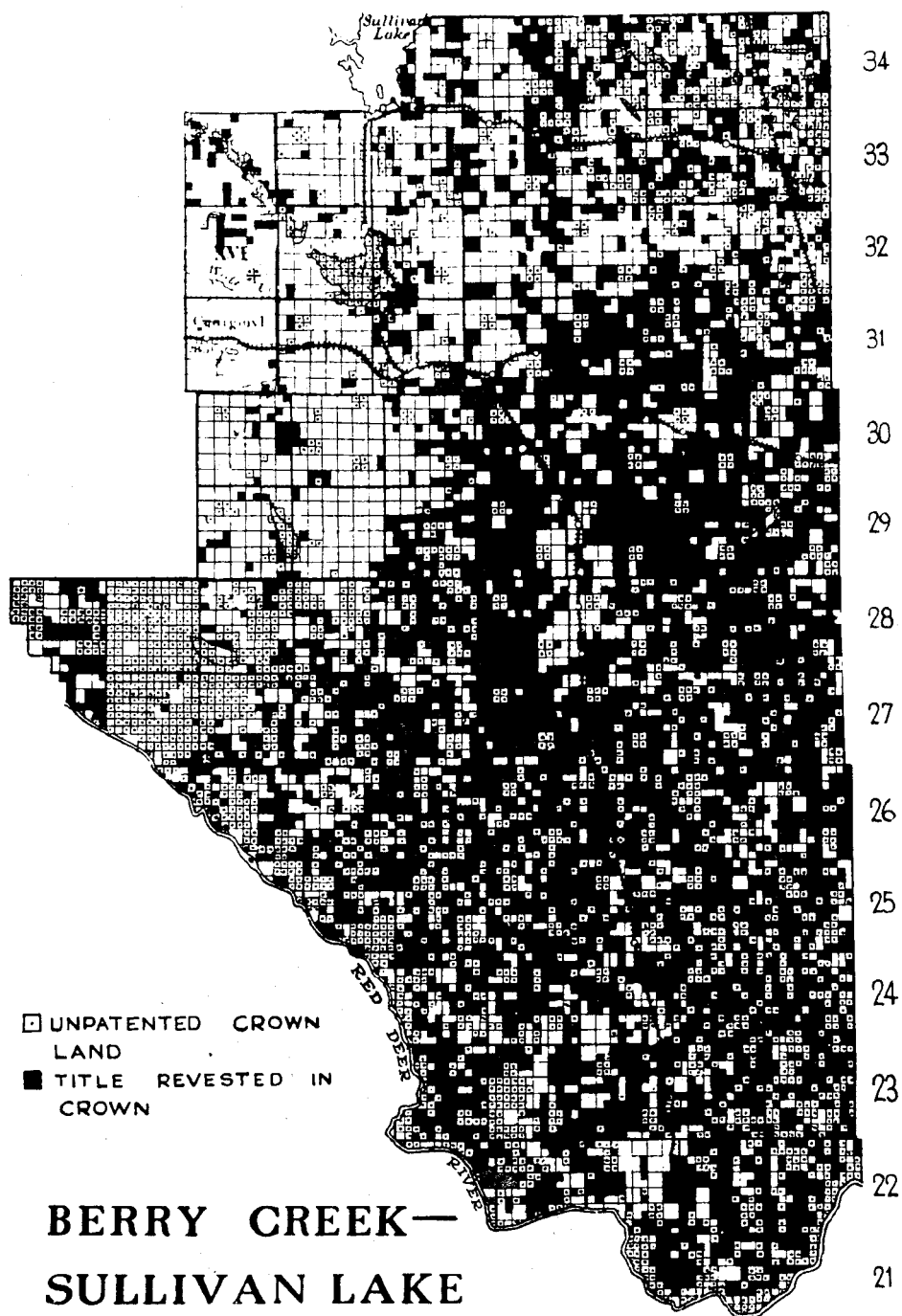
Map
showing
CHANGES IN THE BOUNDARIES
of the
SPECIAL AREAS

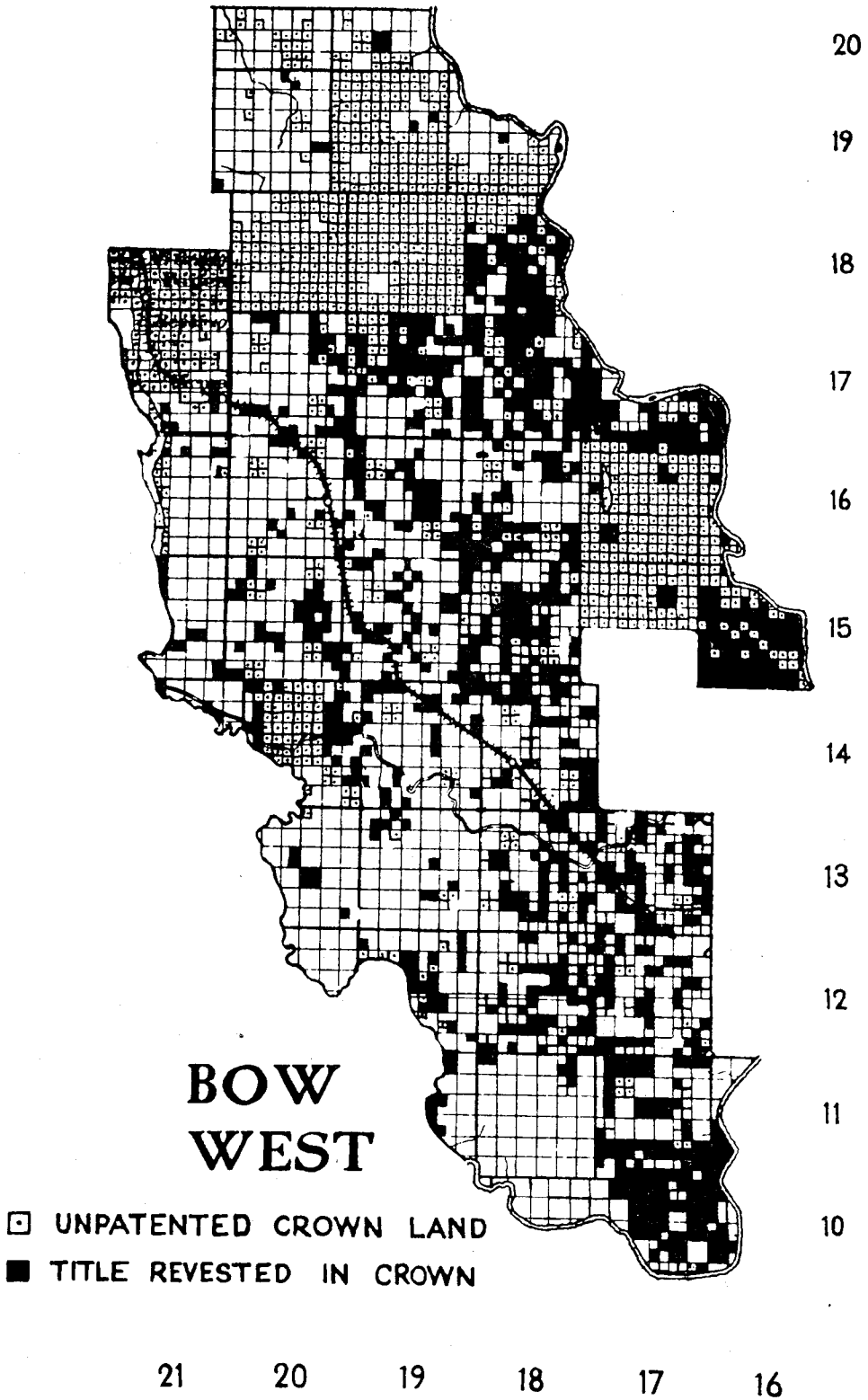
SUBSEQUENT TO THE SPECIAL AREAS ACT OF 1939

Scale 

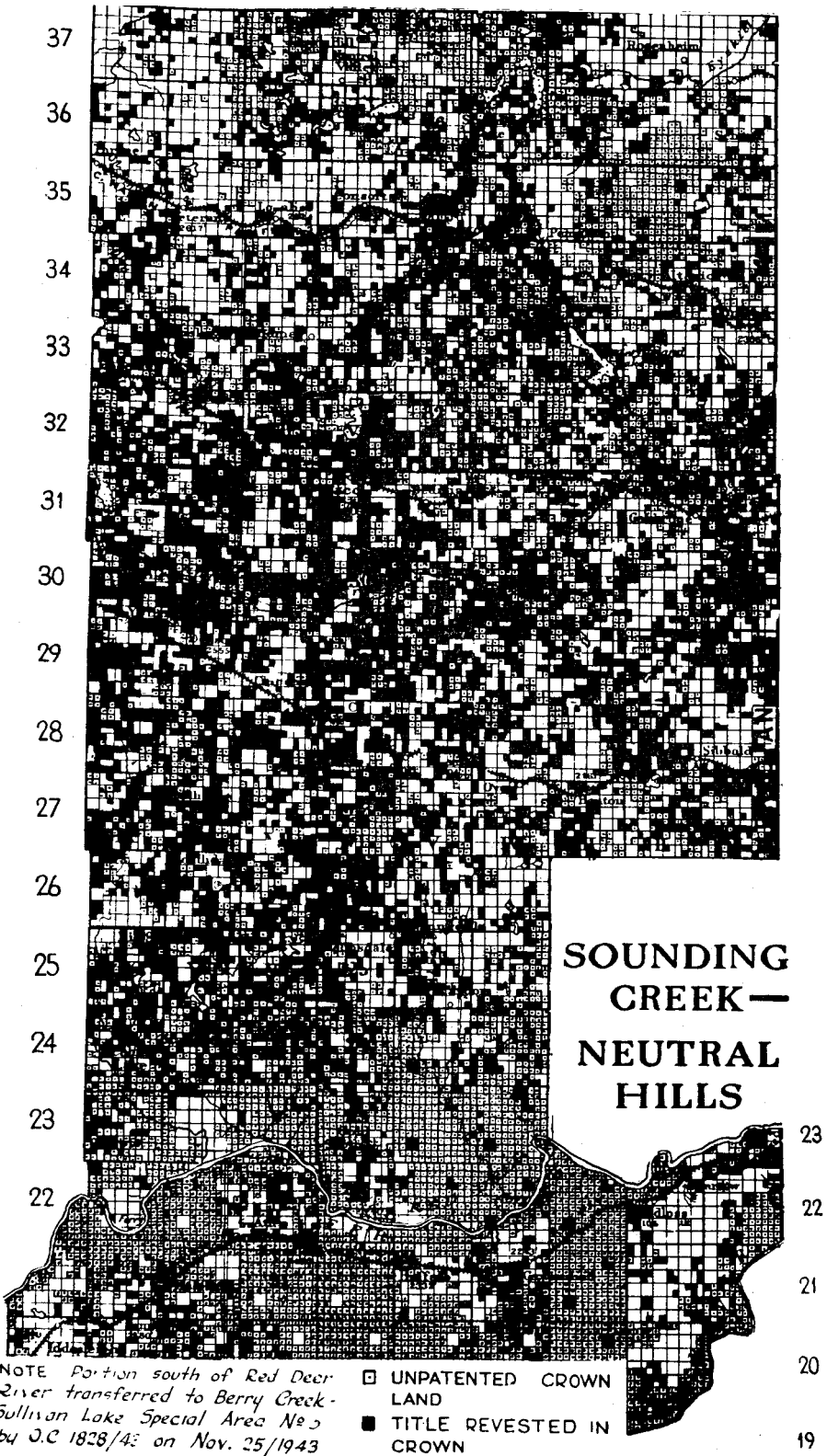
PRESENT BOUNDARY SHOWN *thus* —







9 8 7 6 5 4 3 2 1



TECHNICAL DIVISION

131

EXCHANGES OF LANDS

File No.	Name and Address	Land Transferred to Crown	Land Granted in Exchange	O.C. No. Date
2-12	Edward Stephenson, Loverna, Saskatchewan	S.W. 5-31-2-4 156.22 acres	N.E. 10-31-1-4 160 acres	83/44, 18/11/44 Notification 1/9/44
	Acquired by notification, 12/1/37.			
2-25	James Alex. Cameron, Wastina	S.E. 15-31-8-4 160 acres	N.E. 17-31-8-4 160 acres	1590/44, 10/10/44 Notification 15/2/45
	Acquired by notification, 4/7/41.			
2-59	William Chas. Cessford, Griffith	Lots 22 and 23, Block 1, and Lot 10, Block 2, Sunnynook 4045 C.O.	Lot 22, Block 1, Lots 1, 2 and 3, Block 2, Cessford 949 CN.	662/43, 3/5/43 Notification 30/5/44
	Lot 10, Transfer from Judd Preston, 19/3/38. Lots 22 and 23, Transfer from Empire Lumber Co., Ltd., 21/8/39.			
2-100	Emile Tessier, Oyen	W. ½ 35-25-44 S.E. 35-25-4-4 480 acres	N. ½ 25-26-5-4 S.E. 35-26-5-4 477 acres	464/44, 28/3/44 Notification 3/7/44
	Purchased from Robert Lewison, title acquired by transmission from Official Guardian.			
2-103	Clarence Lloyd Booth, Lomond	N.W. 10-16-19-4 160 acres	N.E. 7-16-19-4 160 acres	657/44, 2/5/44 Notification 1/11/44
	Acquired by notification, 1/6/37.			
2-112	James Glen, Sibbald	N.W. 10-29-1-4 N.W. 30-28-2-4 320 acres	E. ½ 3-29-1-4 319 acres	656/44, 2/5/44 Notification 21/9/44
	N.W. 10, Transfer from Noah E. Eby, 29/6/21. N.W. 30, Transfer from George A. Holliston, 14/8/18.			
2-138	Robt. Raymond Massam, Sedalia	N.E. 26-32-6-4 160 acres	S.E. 5-32-5-4 160 acres	914/44, 20/6/44 Notification 18/10/44
	Homestead—Patented 15/3/19.			
2-152	Mrs. E. Cunningham, Excel	N. ½ 4-30-4-4 318 acres	S.W. 30-29-4-4 160 acres	1507/43, 21/9/43 Notification 18/9/44
	Transfer from Charles Alfred Wicks, 11/2/27.			
2-157	Herbert R. Lockhart, Oyen	S.E. 10-26-4-4 160 acres	N.W. 21-29-3-4 160 acres	463/44, 28/3/44 Notification 31/7/44
	Acquired by notification, 19/5/36.			
2-165	Geo. Everett Bailey	S.W. 28-12-19-4 155.10 acres	N.E. 1-13-20-4 160 acres	1292/43, 10/8/43 Notification 5/5/44
	Acquired by notification, 26/1/39.			
2-166	Samuel W. Warren, Chinook	N.E. 3-27-7-4 S.E. 10-27-7-4 300.40 acres	N.W. 4-27-7-4 S.E. 9-27-7-4 304.50 acres	1101/43, 15/7/43 Notification 11/5/44
	Transfer from M. D. Collholme, 28/1/29.			
2-170	John W. Faupel, Hanna	N.E. 26-32-13-4 160 acres	S.E. 23-32-13-4 160 acres	653/44, 2/5/44 Notification 31/7/44
	Transfer from Central Lands Limited.			
2-179	Mabel Julia Berscht, Alsask, Saskatchewan	S.E. 35-29-1-4 160 acres	S.E. 12-30-1-4 160 acres	655/44, 2/5/44 Notification 23/10/44
	Transfer from M. D. Bertawan, 29/5/30.			
2-182	Martin Ference, Kirriemuir	S.E. 25-34-2-4 154.90 acres	N.E. 7-33-2-4 160 acres	654/44, 2/5/44 Notification 1/9/44
	Transfer from Alex Klonoff, 21/9/26.			
2-184	Robert Clarke McKee, Atlee	S. ½ 23-22-8-4 320 acres	N. ½ 6-22-7-4 298 acres	1270/44, 15/8/44 Notification 22/2/45
	Transfer from Chris Hovland, 19/1/44.			
2-187	John Frederick Solberg, Naco	S.E. 30-32-6-4 160 acres	N.E. 20-32-6-4 160 acres	913/44, 20/6/44 Notification 20/10/44
	Acquired by notification, 23/4/36.			

It will be noted that the exchange of the lands belonging to the Holland Canada Mortgage Company and Credit Foncier Franco-Canadien does not appear, due to the fact that it has not yet been completed, but gratifying progress can certainly be reported; indeed, certain lands located in the North Alberta Land Registration District are now titled in the name of the Crown. This process is continuing, affecting lands in the South Alberta Land Registration District, and when all the records are completed, they will show that the Province has acquired 110,408.38 acres, scattered throughout the Province, from these Companies in exchange for 55,197.60 acres of Crown land which will be granted to these Companies. This, however, will not be done until titles, free and clear of all encumbrances, are received covering the Companies' lands. The ratio of this exchange will be readily seen as two acres of Company land for one acre of Crown land. At the present rate of progress in connection with this exchange, it is expected that it will be completed in the coming year.

Since the inauguration of this exchange policy, a total of ninety-nine settlers have been accommodated and are now farming, in most cases, better lands in consolidated blocks, instead of struggling to wrest a living from inferior scattered lands.

Perhaps it may be in order to state that from time to time a certain amount of impatience is evidenced by the applicants in the delay in completing exchanges of lands. It is not, unfortunately, generally understood the amount of work that is involved. Rather than the exception, it is the general rule that the applicants' lands are badly encumbered and other agencies have to be contacted to obtain releases. Particularly with Dominion Government liens, months have been known to elapse before discharges can be obtained of these federal liens. Often Mechanics Liens and other forms of encumbrances, including mortgages, must be cleared from the title before the Province will accept transfer. Even some of the firms involved in these encumbrances have gone out of business, individuals have died, and again, there have been difficulties in obtaining the present addresses of those claiming an interest in the land. Then still again, even though the applicants are settlers upon land, it is not uncommon to have to wait weeks, and sometimes months, for a reply to our correspondence. This, of course, is quite understandable because in the spring and in the fall the average farmer's efforts are directed on the land and it is difficult to attend to bothersome correspondence.

All applications, however, are given immediate attention, carefully scrutinized and if the recommendations of the Special Areas Board are approved, no unnecessary time is lost in bringing the exchanges through to successful conclusions. As a general rule, all applicants must wait one year after the Crown has received title to the privately owned lands before Notifications issue in favour of the applicants for the Crown lands. This is to insure that applicants are acting in good faith and are not acquiring Crown lands by means of exchanges in order to benefit by sales to other parties.

British Block.

Whilst the Special Areas have been regarded more or less as a "problem child," due to a succession of dry seasons, it seems that fate had ordained that a large tract of these areas lying north of Medicine Hat would inconceivably play an important roll against the Nazi hordes marching upon civilization thousands of miles away. In the spring of 1941 the peaceful lives of the settlers were disturbed by rumors that the Dominion Government was to acquire about thirty townships in the old Tilley East area. These rumours were soon confirmed, and the Dominion of Canada obtained possession and established a full scale experimental station for defensive measures against gas and chemical warfare on the

basis that both capital and maintenance costs would be shared equally by Canada and the United Kingdom.

In spite of the fact that the settlers with great difficulty hardly eked out a living, they were loath to leave the lands that had been home for so many years. And thus the silence of these prairies has been broken and the "British Block," in the years to come, will perhaps even after the cessation of hostilities, continue to serve as a scientific experiment area for weapons of war in order that the democratic way of living may prevail.

New Surveys.

On account of the fact that the Province fell heir to the Natural Resources during the depression, strict economy was exercised in all directions and particularly with reference to land surveys. It was soon established that the old system of forging ahead and surveying all lands, including those that did not merit even the cost of the survey, must cease. Instead, it was decreed that no lands would be surveyed unless of potential agricultural value, with the exception, of course, where settlers had been upon the lands for a number of years and it was necessary to complete the survey in order to issue Notification for the purpose of securing title. There have been no large blocks of land surveyed, mostly patches of unsurveyed townships, but it is evident that attention will have to be directed to the survey of areas of agricultural lands in the Peace River country and also in other sections of the Province where any good agricultural lands may be available, as it is becoming increasingly difficult to meet the needs in the present surveyed areas. The following is a list of the various surveys that have been completed, considered or abandoned over the last fifteen years, and in the case of township surveys new plans of such townships have been prepared, the first one of which was approved and confirmed at Edmonton by the late P. N. Johnson, Director of Surveys, on October 27th, 1931, instead of as hertofore at Ottawa by the Surveyor General of Dominion Lands, when the Resources were under the control of the Dominion.

Survey No.	Part	Tp.	Rge.	Mer.		Secs.
1	69	27	5	Completed	7½
2	70	27	5	Completed	7½
3	69	26	5	Completed	23¾
4	69	6	6	Completed	24
5	70	6	6	Completed	7½
6	76	12	6	Completed	3½
7	76	13	6	Completed	4
8	48	28	4	Completed	3
9	76	8	6	Abandoned	.....
10	N.E. ¼ 29	77	19	5	Completed	.....
11	S.W. ¼ 7	28	18	4	Completed	.....
12	Sask.-Alberta Boundary	.....	.....	.....	Completed	.....
13	68	8	6	Completed	1¼
14	Alberta-B.C. Boundary	.....	.....	.....	Abandoned	.....
15	72	22	5	Completed	9
16	72	23	5	Completed	.....
17	72	24	5	Completed	.....
18	51	2	5	Abandoned	.....
19	49	27	5	Completed	.....
20	50	22	4	Completed	1
21	32	38	8	4	Completed	1
22	52	4	5	Completed	1
23	76, 77	18, 19	5	Completed	.....
24	29, 30	.....	.....	Suspended	.....
	31, 32	9	5	.....	.....
	30, 31	10	5	.....	.....
25	27	6	5	Completed	.....
26	47	1	5	Completed	.....
27	40	8	5	Completed	.....
28	70	11, 12	4	.....	.....
	71	11	4	Suspended	.....
	72	10, 11	4	.....	.....
29	29	20	4	Completed	.....
30	43	8	5	Abandoned	.....
31	44	8	5	Abandoned	.....
32	45	8	5	Abandoned	.....
33	46	8	5	Abandoned	.....
34	47	8	5	Abandoned	.....
35	43	2	5	Suspended	.....

Survey No.	Part	Tp.	Rge.	Mer.	Secs.
36		69	17	4	Suspended
37		77	5	6	Suspended
38		70	21	5	Abandoned
39		70	13	6	Abandoned
40		82	13	6	Abandoned
41		64	14	4	Suspended
42		68	11	6	Suspended
43		51	22	4	Completed
44		49	19	5	Completed
45		18	3	5	Completed
46	N.E. $\frac{1}{4}$ 34	59	12	5	Completed
47		66, 67	2	5	Completed
48		56	15, 16	4	Abandoned
49		70	10	6	Completed
50		80	3	6	Completed
51		14	1	5	Completed
52		46	5	5	Completed
53		58	10	4	Completed
54		49	24	5	Completed
55		48	24	5	Completed
56		19	8	5	Completed
57		17	6	5	Completed
58		7	28	4	Completed
59		32	6	5	
		31	7	5	Suspended
60		94	22	5	Abandoned
61		24	2	5	Completed
62		70	8	6	Abandoned
63		3	27	4	Completed
64		80	10	6	Abandoned
65		28	19	4	Completed
66		27	18	4	Completed
67		23	1	5	Completed
68		24	1	5	Completed
69	Turner Valley Oil Field				In Abeyance
70		60	15	5	Abandoned
71		8	5	5	Completed
72		61	10	4	Completed
73		5	20	4	Completed
74		52	17	4	Completed
75		51	17	4	Completed
76		24	9	5	Completed
77	E. $\frac{1}{2}$ 11	29	20	4	Completed
78		70	9	6	Completed
79		63, 64	3	5	Completed
80		52	16	4	Completed
81		51	16	4	Completed
82		66	15	4	Completed
83		52	8	5	Uncompleted
84	13	83	12	6	Completed
85	N.E. 6	2	15	4	Completed
86	N.E. 2	70	1	6	Completed
87		50	26	5	Completed
88		16	30	4	Completed
89		78	1	6	Delayed
90	N.W. 10	24	1	5	Completed
91		73	4	6	Uncompleted
92	S.E. 9	31	14	4	Completed
93	S.W. $\frac{1}{4}$	70	15, 16	4	Uncompleted
94		43, 44, 45	9	5	Uncompleted
		42, 43	10	5	
		44, 45	11	5	
95		9	3	5	Uncompleted
96		8	3	5	Uncompleted
97	N.W. $\frac{1}{4}$ 24	77	24	5	Uncompleted
98	N.E. $\frac{1}{4}$ 28	108	5	5	Uncompleted

Number 12 survey is important and interesting in that it reveals the completion of the survey of the boundary between the Provinces of Saskatchewan and Alberta, extending from the south shore of Lake Athabaska to the north boundary of the Province. For this purpose a Saskatchewan-Alberta Boundary Commission was formed and met in Ottawa in February, 1938, and arrangements were made whereby the Governments of Canada, Saskatchewan and Alberta would each share one-third of the cost of the survey. In dealing with the boundaries of the Province, some thought was also given to establishing the northern boundary of Alberta, but with talk and rumours of extending the boundaries of our Province to include the rich resources of the North-West Territories, it may not be necessary to survey the line which has been our northern limit for the past forty years. Consideration has also been given to the completion of the boundary between Alberta and British Columbia, but so far

this has not been translated into action, due to the fact that there has been no confliction of administration along this boundary which runs through an area of which little is known.

Number 10 is an addition to the Townsite of McLennan. Most of the privately owned available lots in this townsite had been disposed of, with the result that squatters took possession of Crown lands on the north-east quarter of section 29, township 77, range 19, west 5th meridian. This created an undesirable state of affairs, and a survey was made of four blocks, comprising ninety-seven lots, some of which were disposed of to the squatters.

The next survey, Number 11, on the south-west quarter of section 7, township 28, range 18, west 4th meridian, was not open Crown land. Due to the flood conditions and as a measure of relief, the Department undertook the cost of this survey on the understanding that the owner of the land would provide lots in the subdivision free of charge to certain flood victims.

A former resort, Waiparous Townsite, is represented by survey number 25 and is located at the junction of Waiparous Creek and Ghost River in the foothills midway between Calgary and Banff. The lots in this resort were secured to the applicants by lease, but on August 21st last year, the plan of the subdivision was registered in the Land Titles Office as it was deemed expedient that the Province issue Notification so that title could issue upon the sale of these lots.

Another former resort is represented by survey number 27. This is known as Crimson Lake Resort, and is located on the shore of Crimson Lake, about seventy miles west of Red Deer in section 14, township 40, range 8, west 5th meridian. These lots have an average frontage of about fifty feet, and can be obtained by lease upon a yearly basis.

Squatters were responsible for Number 29 survey. This is only a preliminary survey which up to a certain measure takes care of a squatter situation at Drumheller, and which situation was in existence long before the Province acquired the resources. By a system of permits, the squatters are allowed temporary possession.

With the progress of aviation in the north, a combined seaplane base and air-landing field was responsible for Number 43 survey.

Number 44 survey was made to establish the boundaries of Timber Berth No. 6123.

The survey listed under Number 47 is interesting because the Northern Alberta Railway Company was unable to secure their railway right of way through the unsurveyed portion of townships 66 and 67 range 2, west 5th meridian upon the sale of the railway by the Province. Through this survey, it was possible to obtain the approval of the Board of Transport Commissioners to the railway right of way plan, and in accordance with the agreement of sale of the railway, free title issued to the Railway Company.

Squatters were again responsible for the survey on the north-east quarter of section 15, township 28, range 19, west 4th meridian.

Among the subdivisions included in the above list are the addition to East Coulee in township 27, range 18, west 4th meridian, the St. Lina Subdivision in township 61, range 10, west 4th meridian, the Venice Townsite Subdivision in township 66, range 15, west 4th meridian, accrued area in Block 34, Calgary, and an acreage subdivision adjoining the Town of Hanna. Other surveys include those of the Placer Mine Claims in townships 63 and 64, range 3, west 5th meridian, change in river channels and ordinary township surveys.

Upon making a reservation for a surveyed roadway on Crown lands, an error was discovered in the Dominion Government survey, thus necessitating

survey Number 50, which covers a retracement of the boundaries of Indian Reserve No. 152A.

Number 59 survey has reference to a trail in townships 31 and 32, ranges 6 and 7, west 5th meridian. This trail is to a great extent used by the Forestry Branch leading into the Forest Reserve, and passes over privately held lands as well as Crown lands. There appears to be no doubt that this trail, which is in a Municipality, should be properly surveyed and established as a roadway for the use of the public. The Municipality, however, does not appear to have taken any action in this regard, and this Department, being prompted by the necessity of the roadway, proceeded to take action through the Director of Surveys. Upon advice being received as to the amount of money that would be needed to compensate the owners of the land, the survey was immediately postponed. The situation, however, is of some concern because apparently the roadway is needed, and private interests are now trying to obtain a license and inaugurate the collecting of a toll, which does not receive Departmental approval.

Roadways.

The Department of Public Works forwarded forty-six plans of surveys of roadways for recording in this Division. These surveys affected one hundred and forty-one parcels of Crown lands.

A summary of all such road plans recorded in this Division appears below, from which it will be seen that during the last fifteen years, 1,673 plans have been recorded affecting 5,514 parcels of Crown lands.

ROADWAYS		
Fiscal Year	Ending March 31st:	No. of Road Plans
		No. of Parcels of Land Affected
1931	221
1932	166
1933	105
1934	167
1935	40
1936	282
1937	143
1938	87
1939	108
1940	81
1941	89
1942	71
1943	67
1944	46
1945	46
		<u>1,673</u>
		<u>5,514</u>

Most of these parcels were unalienated Crown lands, but where the lands had been alienated by sales, it was necessary in such cases to obtain Quit Claims from the purchasers and obtain compensation for the roadway in order to credit the purchasers' accounts for the loss of the land taken by the roadway.

Some of these roadways were revised locations of former roadways, necessitating the consolidation of the old roadway with the balance of the land before the reservation of the new roadway could be made. Whilst all the plans are recorded in this Division through the Department of Public Works, such plans also include surveys of roadways which have been made by the Municipality through instructions to surveyors in private practice.

Map Publications.

Since 1930, upon the transfer of the Natural Resources to the Province, the Technical Division has taken modest pride in the comprehensive stock of maps that are now available to the public, and this is in no small measure due to the encouragement received from the Deputy Minister.

All the Dominion publications are available, as well as certain publications, particularly of the adjoining Provinces of British Columbia and Saskatchewan,

as well as other provinces. Maps or plans naturally form the basis of all documents issued by this Department and, in addition, they are a source of valuable information to the general public, especially to those who come from out of town and are unable to describe or locate the lands in which they are interested. In this regard, the services of trained personnel are at the disposal of the general public, who are assured of courteous and helpful assistance at all times.

A steady flow of business can now be reported in connection with the merchandizing of maps over the counter, and many interesting persons from all over this continent, including farmers, trappers, geologists, promoters, prospectors and tourists and in many others walks of life, are given attention.

A great many inquiries are also received by mail, and perhaps it would be permissible to record two interesting cases. One inquiry was from a sailor with the United States Marines, stationed on Guam in the Marianas Islands, requesting maps and other information so that he and his friend could build a cabin in the "Alberta wild country" after the war. Quite a correspondence followed his initial letter, all by air mail, which was an amazing demonstration of the rapidity with which his requests were flown in and the replies and information flown out.

The other case recalls that in February, 1938, certain maps and information were forwarded to Bremen in Germany, and the same man again wrote on August 15th, 1939, also from the same address, requesting certain map publications so that he could "lecture at our Y.M.C.A." A reply was sent without the maps, advising of the cost and also reminding him that there had been no acknowledgment of the free maps sent to him the previous year. It is significant that war was declared the following month, and the letter never reached its destination.

It may be appropriate here to recall how gratifying it was to be of assistance to the pilots of the United States aircraft, who refueled their planes at Edmonton on their way to the Aleutians. After the Pearl Harbor attack, a steady stream of aircraft alighted at the Edmonton Airport, and invariably the pilots of these planes found their way to this office and were supplied with all the available maps that would be of assistance to them in their hazardous flight into the snow and fog-bound north-western fringes of this continent.

Details of the map publications that have been prepared and issued by this Division during the last fifteen years are submitted below:

<i>Map</i>	<i>Printed by</i>	<i>Date</i>	<i>No. Rec'd</i>	<i>Cost</i>	<i>Cost per Copy</i>
1st Issue, Edm. Agency.....	Bulman Bros., Ltd.	June/31	2,000	\$ 394.00	19.7c
Edm. Agency, Reprint.....	Bulman Bros., Ltd.	Sept./33	2,000	134.00	6.7c
2nd Issue, Edm. Agency.....	Dominion Government.....	Aug./35	4,000	80.00	2c.
3rd Issue, Edm. Agency.....	Dominion Government.....	May/38	5,200	237.00	4.6c
Nat. Resources	Western Printing & Lith- ographing Co., Ltd.	July/39	12,000	910.00	7.6c
Nat. Resources, Reprint showing Power Lines, Air Lines, etc.,	Western Printing & Lith- ographing Co., Ltd.	Apr./45	1,000	96.50	9.7c
Alberta Geological	Bulman Bros., Ltd.	Nov./37	4,015	1,141.26	28.4c
1st Issue Calg.-Lethbridge Agency	Bulman Bros., Ltd.	May/34	3,000	376.00	12.5c
2nd Issue Calg.-Lethbridge Agency	Bulman Bros., Ltd.	Feb./38	5,000	252.00	5.04c
Map of Alberta, 8 mi.- 1 inch	Bulman Bros., Ltd.	Nov./31	2,000	1,168.83	58.4c
Map of Alberta, 1st issue, 17½ mi.-1 inch	Bulman Bros., Ltd.	Nov./31	2,000	392.00	19.6c
Map of Alberta, 2nd issue, 17½ mi.-1 inch, plain.....	Bulman Bros., Ltd.	Dec./36	1,000	752.00	25.07c
Map of Alberta, 17½ mi. to 1 inch with roads....			2,000		
Area for Agric. Leases.....	Hamly Press	Apr./44	5,000	61.75	1.2c
Map of Alberta, 1st issue, 35 mi.-1 inch	Dominion Government	Nov./35	5,000	70.00	1.4c

Map	Printed by	Date	No. Rec'd	Cost	Cost per Copy
Map of Alberta, 2nd issue, 35 mi.-1 inch	Dominion Government	July/43	5,000	210.00	4.2c
Map of Alberta, 16 mi.- 1 inch	Bulman Bros., Ltd.	Nov./41	5,100	1,713.80	33.6c
Peace River Agency	Stovel Co., Ltd.	May/45	5,000	621.60	10.4c
Coal Areas of Alberta	Western Printing & Lith- ographing Co., Ltd.	May/40	3,000	304.00	10.1c
Special Areas	Hamly Press	May/44	500	44.00	8.8c

It was a pleasure to be associated with Dr. John A. Allan of the University of Alberta in the publication of his Geological Map and Coal Areas Map.

Maps, Plans and Sketches.

A great number of special maps, plans and sketches have been prepared during the year under review for special purposes, and some of them are worth recording as follows:

(1) A map was prepared showing the broadcasting coverage areas of the different radio stations in the Province and the population of each area covered. This plan was used in connection with the application for a Commercial License for CKUA, the station known as "The Voice of the People" and operated by the Alberta Government Telephones.

(2) The Agricultural Lease Areas and the boundaries of the Agencies, Special Areas and British Block, and also the Crop Share Rates were shown on a sixteen mile map for information to the general public.

(3) Tracings were prepared for the Fish and Game Branch showing the game and fur regulations and the open and closed seasons on game birds, etc.

(4) Plans and descriptions were prepared of the hospital districts in the vicinity of and in the Special Areas showing the new and proposed boundaries of the hospital districts, populations and the doctors in charge.

(5) Detailed maps were prepared for the Minister showing the Turner Valley, Vermilion, Lloydminster, Wainwright, Steeveville Princess, Taber, Red Coulee and the Athabaska Bituminous Sands area. These maps also showed the following information: Drilling reservations, production of oil for the years 1943 to 1944, valuations and number of wells producing, prospecting reservations for the years 1941, 1942, 1943, 1944 and 1945, the number of reservations made and the acreage, also drilling reservations for 1944.

(6) Many calls were made upon this Division for maps and plans in connection with the Post-War Reconstruction, one of which maps showed the power transmission lines, gas pipe lines and air lines throughout the Province. This information was superimposed upon our Natural Resources map in different colours.

(7) A somewhat comprehensive map was prepared for the Forestry Branch, showing the headquarter stations, lookout stations, mobile stations, portable stations, cabins and lookout towers, lookouts equipped with telephone and radio, rangers' stations, boundaries of the ranger's districts and the different wavelengths in colours and also telephone lines. This map was also used by the R.C.A.F. in connection with air raid precaution measures.

Post-War Reconstruction.

Reference in paragraph 6 above is made to the maps and plans required in connection with the Post-War Reconstruction, and it would be appropriate to emphasize the value of the series of maps to which reference was made in the Annual Report of the fiscal year ending in 1943. These maps are upon a scale of three miles to the inch, mounted on linen and bound in two volumes, and

show the alienation of all lands throughout the Province. The preparation of these maps was undertaken at a time when the drafting staff was seriously depleted by enlistments. It was an assignment of some magnitude and, to quote the 1943 Report, it required "unlimited patience, constant application and tenacity of this new product of the war, the lady draftsman." The determination with which this work was undertaken and the farsightedness in inaugurating these maps has been fully justified over and over again. Not only have these maps been of great value to this and other Governmental Departments and railway and colonization organizations in the consideration of post-war schemes, but undoubtedly this Division can readily attest that a great deal of work has been saved, as a large number of special maps would have had to be prepared to meet the various inquiries. The series of maps seem to fully meet the situation at all times. Needless to say, all documents issued by the Department affecting surface rights pass through this book every day, so that it is possible to obtain an up to date bird's-eye view of the disposition of any area of land in the Province.

Trapline Maps.

Another set of records was completed in 1943, but by no means entailing the work involved in the series referred to immediately above. This new set was drafted upon mounted sectional maps and shows all the traplines for which licenses have been issued by the Fish and Game Branch. As soon as an application is received it is plotted upon the map in order to ascertain if it in any way conflicts with a previous licensed area, and thus through these records many disputes are averted.

Plans and Sketches.

Plans or sketches are prepared in connection with practically every application that is received in the Department affecting surface rights, and when such applications are approved, legal descriptions by metes and bounds are then prepared. Unfortunately, no record has been kept by this Division, but it is no over-statement to record that during the fifteen years of the administration, hundreds of thousands of sketches and legal descriptions have been prepared.

Licenses of Occupation.

Plans of surveys were examined and recorded in connection with Licenses of Occupation. Most of these plans covered rights of way for the power transmission lines of the Calgary Power Coal Company Limited, whilst other plans included: (1) An area for right of way for pipe line for the Valley Pipe Line Company Limited. (2) An area for a logging road for the White Creek Lumber Company Limited. (3) A block of land comprising 1,042.96 acres for the Taber Irrigation District. (4) 2.60 acres for pipe line right of way and reservoir for storage of water for the Northern Alberta Railways Company. (5) A reservoir site containing 72.80 acres for the Department of Agriculture, Dominion of Canada.

More complete details are as follows:

<i>License of Occupation No.</i>	<i>Name</i>	<i>Term</i>	<i>Land</i>
75 S.L.	Dept. of Agriculture, Dominion of Canada	Pleasure	Pt. N.W. $\frac{1}{4}$ 11-2-28-W. 4th
76 S.L.	Calgary Power Co., Ltd.	As required	Pt. N.W. $\frac{1}{4}$ 29-48-24-W. 4th
77 S.L.	Calgary Power Co., Ltd.	As required	Pt. S.W. $\frac{1}{4}$ 29-47-24-W. 4th
79 S.L.	Calgary Power Co., Ltd.	As required	Pt. N.W. $\frac{1}{4}$ 11-47-20-W. 4th
80 S.L.	Calgary Power Co., Ltd.	As required	Pt. N.E. $\frac{1}{4}$ 11-46-18-W. 4th
81 S.L.	Calgary Power Co., Ltd.	As required	Pt. S.W. $\frac{1}{4}$ 29-50-24-W. 4th
149	Valley Pipe Line Co., Ltd.	Pleasure	Pt. S.E. $\frac{1}{4}$ 2-20-3-W. 5th
150	White Creek Lumber Co.	Pleasure	Pt. N.W. $\frac{1}{4}$ 19-52-21-W. 5th, Pt. N. $\frac{1}{2}$ and S.W. $\frac{1}{4}$ of Sec. 3, S.E. $\frac{1}{4}$ of Sec. 10, W. $\frac{1}{2}$ of Sec. 11, W. $\frac{1}{2}$ of Sec. 13, and W. $\frac{1}{2}$ and N.E. $\frac{1}{4}$ of Sec. 24, 52-22- W. 5th
151	Taber Irrigation District	As required	All L.S. 14, W. $\frac{1}{2}$ of L.S. 15, N. $\frac{1}{2}$ and S.E. $\frac{1}{4}$ of L.S. 13 of Sec. 3, S.E. $\frac{1}{4}$ of Sec. 9, N. $\frac{1}{2}$ of Sec. 10, N. $\frac{1}{2}$ and S.W. $\frac{1}{4}$ of Sec. 11-10-16-W. 4th
152	Northern Alberta Rlys. Co., Ltd.	As required	Pt. N. $\frac{1}{2}$ 27-71-11-W. 4th

Unregistered Patents and Notifications.

A good measure of success can be reported on the persistent efforts of this Division to obtain the Land Titles Offices registration fee from the owners of unregistered patents and notifications which had accumulated over the years in the Land Titles Offices at Calgary and Edmonton. Of the hundreds of documents that covered land for which no Certificate of Title had ever issued due to the non-payment of the registration fee, only sixty-two Dominion patents and fifty Provincial notifications remain unregistered. The failure to obtain the registration fee for these one hundred and twelve documents is attributed to the fact that in some instances no reply was received, letters were returned or the owner had died and the estate did not appear interested. It will be noticed that there are still a number of school sites and many of the districts no longer desire title, due to the fact that the land is no longer used for the purpose on account of the school closing or on account of the school being moved to another location.

The consideration of the Department is now being given as to the most effective way to have title issue so that these properties may appear upon the tax roll in order that the taxing authorities may have legal means to acquire title if the taxes are not forthcoming.

Photostat Machine.

Since this machine was installed in 1939, there has been convincing evidence, year after year, that it was a first class investment and its worth amply demonstrated, particularly with the depletion of the drafting staff by enlistments in the Services. Many rush calls have been made upon the machine by the different commissions that invariably make requests at the last minute. The sudden rush call from the Department of Municipal Affairs is well remembered when it was necessary to work overtime to photostat a large number of copies of each enlarged Municipal District unit in preparation for the forthcoming legislation establishing same.

Photostat service is available to all Departments of the Government. This service is free except for a small charge to defray the cost of materials.

It may be added here that all our maps are also on the free list to all Government Departments, except where quantities are required, and in such cases they are available at cost.

The photostat machine is in practically continuous operation and often on overtime work, so that it will not be surprising to record that since the machine

was installed, 303 rolls of photostat paper have been used, equivalent to a total length of twenty miles.

Recordak Machine.—During the year the photographing of the files and documents was properly transferred to the administration of the Registration Division, which Division has charge of the files.

Stencil Machine.—The stencil machine was transferred to this Division in September, 1941, and since 1932, when it was installed in the Department, a total of 4,492 stencils have been cut and 1,598,190 copies have been run off. Details year by year are as follows:

Year	Nos. of Stencils Cut	No. of Copies
1932-33	373	129,325
1933-34	386	77,123
1934-35	181	55,454
1935-36	302	76,494
1936-37	288	117,464
1937-38	376	145,307
1938-39	613	190,745
1939-40	344	129,320
1940-41	332	141,297
SEPTEMBER 4th, 1941, TRANSFERRED TO TECHNICAL		
1941-42	389	136,903
1942-43	381	196,944
1943-44	373	198,240
1944-45	535	200,518
	<u>4,492</u>	<u>1,598,190</u>

Mineral Taxation.

In order to get a clear picture of mineral taxation in the Province it will be necessary to make reference to the following Acts:

1. The Tax Recovery Act, 1922.
2. The Tax Recovery Act, 1929.
3. The Tax Recovery Act, 1938.
4. The Mineral Taxation Act, 1938.
5. The Oil and Gas Resources Conservation Act, 1938.
6. The Assessment Act, 1938.
7. The Mineral Taxation Act, 1941.
8. The Mineral Taxation Act, 1945.

The Tax Recovery Act, 1922.—Under section 2 of this Act dealing with interpretation, paragraph (e) refers to land as follows:

"Land" shall include improvements.

Paragraph (d) is as follows: Improvements shall include all buildings and all erections or works in or upon land.

In this Act there is no reference to minerals, and title could only be obtained to the surface rights for non-payment of taxes.

A situation arose whereby thousands of titles were vested in the name of the taxing authorities for the surface rights, but the mineral titles still remained with the owner.

To overcome this situation, the Cities of Edmonton, Calgary and Medicine Hat sought charter amendments providing for the taxation of minerals and the power to acquire title to the minerals as well as the surface for non-payment of taxes. Under these charter amendments, the City of Medicine Hat particularly has undoubtedly benefited as that city has acquired many titles to minerals adjacent to the producing gas wells within the city limits.

In the year 1929, The Tax Recovery Act of 1922 was repealed except in so far as the charter amendments granted to the Cities of Edmonton, Calgary and Medicine Hat.

The Tax Recovery Act, 1929.—Under this Act, "land" includes improvements and minerals, and provision was made for the assessment as a unit, or the land and the minerals could be assessed separately. Whilst provision was made for the assessment of minerals, it would appear that no serious attempt was made in this connection.

The Oil and Gas Resources Conservation Act, 1938.—The intent, purpose and object of this Act is to effect the conservation of oil resources and gas resources or both in the Province by the control or regulation of the production of oil or gas or both, whether by restriction or prohibition and whether generally or with respect to any specified area or any specified well or wells or by repressuring of any oil field, gas field or oil gas field and, incidentally thereto, providing for the compulsory purchase of any well or wells.

The Assessment Act, 1938.—In the drafting of this Act, due to The Oil and Gas Resources Conservation Act, 1938, it was necessary to give "mineral" a new meaning, and reference to this Act will find the following definition: "Mineral includes coal but shall not include natural gas, petroleum, gasoline or any oil of a mineral nature."

The Tax Recovery Act, 1938.—This Act defines land to include improvements and minerals, but as the 1938 Assessment Act restricted the meaning of "mineral to include coal, but which shall not include natural gas, petroleum, gasoline or any oil of a mineral nature," assessment and taxation under The Tax Recovery Act of 1938 could only apply to coal and all other minerals except natural gas, petroleum, gasoline or any oil of a mineral nature.

The Mineral Taxation Act, 1938.—Due to the amendments in the 1938 Assessment Act restricting assessment and taxation to certain minerals, the Department of Municipal Affairs sustained a loss in revenue, with the result that under this Act a mineral tax came into force on an acreage basis at the rate of one-third of a cent per acre and was levied against all minerals, the meaning of which is defined as follows in section 2, subsection (b): "Minerals includes, but not so as to restrict in any way the ordinary meaning of the word, natural gas, petroleum, gasoline and all oils of a mineral nature, but does not include any minerals in, on or under any land within the boundaries of any city or town other than a town declared to be a mining town pursuant to The Urban Mining Operations Act, or any minerals in, on or under any land forming part of the right-of-way of any railway."

The Mineral Taxation Act, 1941.—In 1941, mineral assessments and taxation were reviewed with the result that the 1941 Mineral Taxation Act was passed, under which the Department of Lands and Mines taxed all minerals excepting coal, the assessment and taxation of which was left with the Department of Municipal Affairs and Municipalities. The Department of Lands and Mines was given power to acquire title to all minerals for non-payment of taxes upon serving a registered notice. Whilst this was a step in the right direction, the main difficulty was in obtaining a complete list of the registered owners of all minerals similar to the assessment list of all registered owners of the surface rights.

By Order in Council, a rate of one-half cent per acre was struck, and the Act placed the responsibility upon all registered owners to deliver to the Minister a statement of all minerals owned and pay all taxes so due.

The Mineral Taxation Act, 1945.—So that the assessment and taxation of all minerals whatsoever should be placed under one authority, The Mineral Taxation Act of 1945 was passed, which included coal previously assessed and taxed by the Department of Municipal Affairs and Municipalities. In the administration of this new Act, the same difficulty is confronted, due to the fact that there is not in existence a complete list of all the registered owners of all the

minerals in the Province. To obtain such a list is somewhat of a stupendous job, but a mild start has been made in this direction. A clerk has been appointed to the Land Titles Office in Calgary and also in Edmonton in order to extract from the records the names of the registered mineral owners and complete details of the minerals.

As the Act provides that all registered owners of minerals must pay all arrears of mineral taxes before a document can be registered concerning minerals, each clerk stationed in the Land Titles Office is in a position to advise the amount of taxes due and issue a receipt for the tax arrears, and upon presentation of such receipt to the Registrar, registration will be permitted of the documents affecting the minerals. From this point on, these registered owners are added to our list for taxation purposes, and any change in ownership is then, under the Act, supplied by the Registrar. The rate under this Act was struck at one cent per acre. This is termed as an acreage tax, but in addition to the acreage tax there is provision made for assessment and taxation for all minerals in producing areas.

In the administration of this Act, very comprehensive and detailed records have been, and are being, set up which includes the name and address of each registered owner, a complete description of the mineral area and specific details of the mineral or minerals owned. Plan records and other records making cross references from the registered owner's name to the description of the mineral area are maintained so that eventually a complete list of the registered mineral owners will be obtained. The speed with which this can be accomplished can only be measured by the rate that this information is being obtained, which, at present, is by one clerk in the Calgary Land Titles Office and one clerk in the Edmonton Land Titles Office.

Many unusual problems have arisen in connection with the administration of this Act which is being undertaken in as thorough and businesslike manner as circumstances will permit, and undoubtedly much valuable information and experience is being obtained, and the present records will stand as a firmer foundation upon which to build a permanent mineral taxation structure.

Details of the amounts of taxes that have been collected by this Department from 1941 are as follows and will, in the future, increase commensurate with the addition of the mineral tax owners to our list and the opening up of new production areas upon the vast resources of the Province:

	<i>Producing Area</i>	<i>Non-Producing Area</i>	
1941	\$ 24,532.61	\$ 50,588.32	\$ 75,120.93
1942	27,463.60	66,901.08	94,364.68
1943	40,308.01	61,767.14	102,075.15
1944	31,255.85	61,527.44	92,783.29
			<u>\$364,344.05</u>

A decline in revenue from 1943 to 1944 is attributable to the decline in production of the Turner Valley Oil field.

Co-operation.

At all times, it has been the endeavour of the Technical Division to co-operate with and be of service to all the Divisions and Agencies of the Department. Looking back over the fifteen years, it is most gratifying to record that a great measure of success has been achieved in this regard. A great deal of the work also brings this Division into contact with other Government Departments, particularly the Surveys Branch of the Department of Public Works, in connection with surveys of highways, roadways, Dominion Government survey notes transferred to the safekeeping of the Director of Surveys upon the return of the Natural Resources, general township and subdivision surveys and incidental matters. In this regard, there is complete understanding and first-class co-operation.

Through the registration of Notifications and Transfers and the requests for Abstracts, Descriptions and Plans, etc., continuous contact is kept with the Land Titles Offices at Calgary and Edmonton.

The Mineral Taxation Act also presents many tricky problems, and it is a pleasure to recall that the utmost co-operation has been established with and received from the Registrars and their staffs. Whilst the greater number of Notifications are for lands in the North Alberta Land Registration District, assignments of a somewhat intricate nature in connection with mineral taxes and exchanges of land, not forgetting the subsequent long Historical Abstracts, appear to crop up in the Calgary Office where, due to the ready and much appreciated helpful assistance of the Registrar, complicated situations have been speedily settled.

The Department of Municipal Affairs, the Department of Trade and Industry, the Petroleum and Natural Gas Conservation Board, the Purchasing Agency are other Departments with which happy relations exist, and more recently and by no means least, through the Right of Entry Regulations, the Board of Public Utility Commissioners, the Chairman of which has indeed been most helpful. To him is extended our appreciation.

The general public, with whom a growing goodwill has been built up over the last fifteen years, are assured complete co-operation and assistance in the years to come.

Staff.

It is no ingratitude to leave reference to the staff until the last paragraph of this report, but rather to emphasize the splendid co-operation and the esprit de corps that exists among all members of this Division which, it is hoped, has contributed to some extent in, and may it be modestly said, the somewhat enviable achievements of the Department of Lands and Mines since its inception. With possibly the odd exception, this Division has been most fortunate in its employees, some of whom still remember the long hours in overtime that were spent over the months and extending into years, when the records and files arrived from Ottawa to be absorbed into the new Provincial administration, and later still, when much "midnight oil" was burned assisting in the preparation of the Province's claim against the Dominion Government for alienation of its Natural Resources.

At the outbreak of war, Miss Isobel Russell and Messrs. Dennis Young, Roland Newsome, Ronald Robertson, William Cragg, Robert McKee, Charles Lashbrook, Rodney Edgecombe, and R. E. McCracken joined the colours. Of these, Dennis Young paid the supreme sacrifice, and we mourned his loss in July, 1941. The staff was further depleted by resignations, so that it was somewhat difficult to carry on. No experienced draftsmen were available, and thanks to the loyalty of some of the remaining members of the drafting section, tempting offers from the Americans at most attractive salaries were turned down. Inexperienced help had to be brought in and trained, and a commendable degree of service can now be maintained until the "Veterans" return.

At the beginning, salaries throughout the Division were established in accordance with the "depression" scale, but for all those who return from the war and for those loyal members who have "carried on" in their absence, there is reason to hope that salaries will be established commensurate with responsibilities; indeed, it is a fact that a step has already been made in this direction. In closing this report it is, therefore, fitting to express sincere appreciation of the services of the members of this Division, whose loyalty and devotion to duty have contributed to the successful administration of our Natural Resources over the past decade and a half.

Accounting Division

REPORT OF THE ACTING ACCOUNTANT,

J. W. PATRICK

The various statements that are a part of this report give in detail the collections for the year. The following points are to be noted therefrom.

Gross Receipts from all sources \$5,329,173.91, net \$4,514,067.56, an increase of \$425,732.10 in net receipts over the previous year. Main increases and decreases were as follows:

Lands and Grazing Branch:

	Increase	Decrease
Casual	\$ 21,152.03	
Grazing Permits, Fees, Dues, etc.	42,025.78	
Mining Lands Branch:		
Coal Fees, Rentals, etc.	25,561.20	
Coal Royalties	11,545.54	
Petroleum and Natural Gas Fees, Rentals, etc.	358,893.15	
Petroleum and Natural Gas Royalties	165,704.25	
Mineral Tax		\$ 9,291.86
School Lands Branch:		
Sales: Interest		26,352.78
Timber Permits, Fees, Dues, etc.	14,260.79	
Petroleum and Natural Gas Fees, Rentals, etc.	45,930.41	
Sales Principal	56,181.57	
Special Areas and Special Districts:		
Taxes		102,333.60
Special Areas Receipts		113,998.42
Agricultural Advances		13,804.45
Miscellaneous		56,741.51
Net increase in Receipts		425,732.10
	<u>\$748,254.72</u>	<u>\$748,254.72</u>

Net Revenue on Income Account amounted to \$3,484,630.31, an increase of \$662,845.58 over the previous year. Total expenditures from appropriations amounted to \$1,041,839.92, leaving a surplus on income account of \$2,442,790.39.

Statements M and N have been added to give a picture of the fifteen years that the Department has operated. A comparison of the year 1944-45 with the year 1931-32 (the first complete year of operation) shows the following percentage increases: Gross Receipts 369%, Net Receipts 300%, Net Revenue on Income Account 238%, Total Expenditure from Appropriations 51%, Surplus on Income Account 616%, Timber Branch 384%, Mining Lands Branch 270%. These percentage increases show very clearly the growth of the Department.

INDEX TO STATEMENTS

- A.—Statement of Receipts from All Sources.
- B.—Statement of Receipts—Income Account.
- C.—Statement of Receipts—Capital Account.
- D.—Statement of Receipts—Agricultural Advances.
- E.—Statement of Receipts and Payments—Special Areas Trust Account.
- F.—Statement of Receipts and Payments—Special Districts Trust Account.
- G.—Statement of Receipts—Special Areas and Special Districts.
- H.—Statement of Receipts by Branches.
- I.—Statement of Receipts—School Lands Branch.
- J.—Alberta School Lands Trust Fund Balance Sheet.
- K.—Alberta School Lands Sales Revenue Account.
- L.—Statement of Collections on Tax Recovery Lands.
- M.—Statement of Receipts and Expenditure for fifteen year period, 1940-45.
- N.—Statement of Receipts by Branches for fifteen year period, 1930-45.

DEPARTMENT OF LANDS AND MINES

STATEMENT A.

STATEMENT OF RECEIPTS FROM ALL SOURCES

From April 1, 1944 to March 31, 1945

	Gross Receipts	Refunds	Net Receipts
Income Account	\$3,751,857.43	\$ 267,286.97	\$3,484,570.46
Capital Account	22,374.99	249.51	22,125.48
Reimbursement of previous year's expenditures	78.32		78.32
School Lands Trust Fund	350,127.33	1,022.34	349,104.99
Special Areas and Special Districts	450,297.62	5,186.68	445,110.94
Unapplied Receipts carried forward (subject to refund)			
Suspense	574,686.44	449,349.32	125,337.12
Tax Recovery	112,035.20	89,492.26	22,542.94
Improvements	3,599.41	2,519.27	1,080.14
Land patents cultivation crop shares	2,489.01		2,489.01
School lands cultivation crop shares	37,125.17		37,125.17
Grazing permits, fees, rentals, etc.	24,502.99		24,502.99
	<u>\$5,329,173.91</u>	<u>\$ 815,106.35</u>	<u>\$4,514,067.56</u>

STATEMENT B.

STATEMENT OF RECEIPTS—INCOME ACCOUNT

From April 1, 1944 to March 31, 1945

INCOME ACCOUNT:	Gross Receipts	Refunds	Net Revenue
Fisheries:			
Casual	\$ 1,333.60		\$ 1,333.60
Fishing licenses	18,871.00	25.00	18,846.00
Angling permits	14,502.71	1,463.21	13,039.50
Boat licences	45.00		45.00
Game Branch:			
Casual	737.90	10.00	727.90
Gages licenses	84,248.93	6,094.51	78,154.42
Trap line permits	18,989.11	60.00	18,929.11
Fur tax	84,677.02	4,731.16	79,945.86
Sale of fur	8,178.54	297.36	7,881.18
Lands and Grazing Branch:			
Casual	33,897.30	509.67	33,387.63
Grazing permits, fees, dues, etc.	181,147.17	19,714.38	161,432.79
Hay permits, fees, dues, etc.	4,370.81	393.75	3,977.06
Agricultural fees, rentals, etc.	3,851.89	1,189.41	2,662.48
Improvement collections fees	1,396.19	10.00	1,386.19
General sales interest	1,663.89	9.79	1,654.10
Cultivation permits, fees, rentals, etc.	21,519.24	9,172.95	12,346.29
Surface rentals	3,752.90		3,752.90
Timber Branch:			
Casual	6,891.32		6,891.32
Timber fees, dues, rentals, etc.	854,632.44	17,842.97	836,789.47
Mining Lands Branch:			
Casual	27,526.57	1,517.80	26,008.77
Coal fees, rentals, etc.	115,142.18	1,271.31	113,870.87
Coal royalties	251,140.60	4.10	251,136.50
Coal Mines Act sundry revenue	4,318.47		4,318.47
Petroleum and natural gas fees, rentals, etc.	600,285.78	1,533.58	598,752.20
Petroleum and natural gas royalties	673,669.24	4,439.17	669,230.07
Mineral Tax	92,866.37	83.08	92,783.29
School Lands Branch:			
Interest on sales	114,147.48		114,147.48
Miscellaneous	502,667.83	196,753.07	305,914.76
Miscellaneous:			
Casual	17,852.22	150.70	17,701.52
Services and supplies	3,779.01		3,779.01
Reimbursement of salaries and expenses	3,364.72		3,364.72
Tax recovery office fees	390.00	10.00	380.00
Total (carried to Statement A)	<u>\$3,751,857.43</u>	<u>\$ 267,286.97</u>	<u>\$3,484,570.46</u>
Special Districts (carried to Statement D):			
1936 seed grain interest	33.73		33.73
1937-38 feed and fodder interest	17.31		17.31
1938-39 feed and fodder interest	8.81		8.81
TOTAL INCOME ACCOUNT	<u>\$3,751,917.28</u>	<u>\$ 267,286.97</u>	<u>\$3,484,630.31</u>

STATEMENT C.

STATEMENT OF RECEIPTS—CAPITAL ACCOUNT

From April 1, 1944 to March 31, 1945

	Gross Receipts	Refunds	Net Revenue
Land sales principal	\$ 22,374.99	\$ 249.51	\$ 22,125.48

STATEMENT D.

STATEMENT OF RECEIPTS—AGRICULTURAL ADVANCES
From April 1, 1944 to March 31, 1945

	Principal	Interest
1937-38 Feed and Fodder	\$ 590.89	\$ 17.31
1938-39 Feed and Fodder	466.48	8.81
1936 Seed Grain	1,012.51	33.73
1937 Seed Grain Implemented Loan Account	2,140.90	22.78
1938 Agricultural Advances Implemented Loan Account	5,944.06	134.18
Net to Statement G	<u>\$ 10,154.84</u>	<u>\$ 216.81</u>

STATEMENT OF RECEIPTS AND PAYMENTS

STATEMENT E.

SPECIAL AREAS TRUST ACCOUNT

For the year ended March 31, 1945

Cash in bank, April 1, 1944		\$491,712.00
Receipts:		
Equipment rentals	\$ 60,836.36	
Grazing rentals	59,203.08	
Cultivation rentals	44,096.02	
Sale of improvements	8,316.85	
Land sales, principal and interest	4,666.09	
Bank interest	3,603.43	
Miscellaneous	2,129.29	
		<u>182,851.12</u>
		\$674,563.12
Payments:		
Equipment maintenance and operation	\$ 55,238.64	
Purchase of equipment	39,024.73	
Community pastures	12,264.03	
Stationery and office supplies	1,289.24	
Recoverable advances	1,121.19	
Grass seed	831.55	
Construction of dams	706.97	
Miscellaneous	511.10	
		<u>110,987.45</u>
Cash in bank, March 31, 1945		<u>\$563,575.67</u>

STATEMENT OF RECEIPTS AND PAYMENTS

STATEMENT F.

SPECIAL DISTRICTS TRUST ACCOUNT

For the year ended March 31, 1945

Cash in bank, April 1, 1944		\$372,234.09
Receipts:		
Special Districts tax	\$297,938.98	
School lands crop share	6,194.79	
School grants	4,230.00	
Bank interest	2,179.30	
Miscellaneous	1,019.75	
		<u>\$311,562.82</u>
		\$683,796.91
Payments:		
School requisitions	\$144,839.68	
Maintenance of roads	99,592.61	
Hospital requisitions	20,188.93	
Relief and public welfare	12,881.94	
Travelling expenses	6,767.24	
Maintenance of offices	2,853.46	
Telephones and telegrams	2,104.00	
Pests and weeds	1,765.85	
Sidewalks	1,414.31	
Postage	1,205.00	
Land Titles Office, fees	1,026.65	
Recoverable advances	802.29	
Stationery and office supplies	769.20	
Preliminary expenses re sale of equipment	438.47	
Miscellaneous	1,465.00	
		<u>298,114.63</u>
Cash in bank, March 31, 1945		<u>\$385,682.28</u>

STATEMENT G.

STATEMENT OF RECEIPTS
SPECIAL AREAS AND SPECIAL DISTRICTS

From April 1, 1944, to March 31, 1945

	Gross Receipts	Refunds	Net Revenue
TAXES:			
General tax—Statement F	\$300,292.03	\$ 2,353.05	\$297,938.98
Social service tax	6,923.53	8.25	6,915.28
Reporting school tax	3,032.65		3,032.65
Refunded to school districts	\$ 2,881.02		
5% commission to Special Districts Trust Account	151.63		
Total Collections	\$ 3,032.65		
Hail Tax	1,873.52		1,873.52
Refunded to Hail Board	1,779.85		
5% commission to Special Districts Trust Account	93.67		
Total Collections	\$ 1,873.52		
TOTAL TAX COLLECTIONS	\$312,121.73	\$ 2,361.30	\$309,760.43
Special Districts bank interest—Statement F	2,179.30		2,179.30
Special Districts miscellaneous—Statement F	779.45	5.00	774.45
Statement F	\$ 1,019.75		
Less: Reporting School commissions	151.63		
Less: Hail tax commissions	93.67		
.....	\$ 774.45		
Special Areas trust receipts	124,835.14	2,820.38	122,014.76
Statement E	\$182,851.12		
Less: Equipment rentals	60,836.36		
.....	\$122,014.76		
Agricultural Advances—Statement D	10,371.65		10,371.65
Collections for Department of Agriculture:			
Horse Vaccine	10.35		10.35
.....	\$450,297.62	\$ 5,186.68	\$445,110.94

STATEMENT H.

STATEMENT OF RECEIPTS BY BRANCHES

For fiscal years ending March 31, 1944 and March 31, 1945

INCOME ACCOUNT:

	Fiscal year ending March 31, 1944	Fiscal year ending March 31, 1945
Fisheries Branch	\$ 29,194.09	\$ 33,264.10
Game Branch	172,229.45	185,638.47
Lands and Grazing Branch	151,059.84	220,599.44
Timber Branch	843,106.86	843,680.79
Mining Lands Branch	1,112,506.30	1,663,316.88
Mineral Tax	102,075.15	92,783.29
School Lands Branch	395,325.32	420,062.24
Miscellaneous	16,267.66	25,225.25
CAPITAL ACCOUNT:		
Land Sales Principal	15,810.92	22,125.48
TRANSFERRED TO OTHER DEPARTMENTS	103.10	78.32
SCHOOL LANDS TRUST FUND	292,923.42	349,104.99
SPECIAL AREAS AND SPECIAL DISTRICTS:		
Taxes	412,094.03	309,760.43
Special Districts bank interest	1,084.47	2,179.30
Special Districts miscellaneous	879.87	774.45
Special Area Receipts	236,013.18	122,014.76
Agricultural advances	9,285.16	10,371.65
1938 Agricultural advances forwarded from previous year	14,890.94	
Horse Vaccine	96.00	10.35
Bran and sawdust	3.00	
UNAPPLIED RECEIPTS CARRIED FORWARD:		
Suspense	189,035.00	147,880.06
Improvements	2,593.15	1,080.14
Land patents cultivation crop shares	3,301.94	2,489.01
School lands cultivation crop share	57,780.14	37,125.17
Grazing permits, fees, rentals, etc.	30,676.47	24,502.99
.....	\$4,088,335.46	\$4,514,067.56

ACCOUNTING DIVISION

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STATEMENT OF RECEIPTS
SCHOOL LANDS BRANCH

From April 1, 1944, to March 31, 1945

STATEMENT I.

INCOME ACCOUNT:

	Receipts	Refunds	Net Revenue
Sales: Interest	\$ 114,167.65	\$ 20.17	\$ 114,147.48
Grazing fees, rentals, etc.	22,087.12	67.96	22,019.16
Hay permits, fees, dues, etc.	671.25	45.00	626.25
Cultivation permits, fees, dues, etc.	291,255.90	191,036.50	100,219.40
Surface rentals	827.49		827.49
Miscellaneous rentals	3,530.91	15.00	3,515.91
Timber permits, fees, dues, etc.	51,056.90	2,847.90	48,209.00
Coal permits, fees, rentals, etc.	4,764.90	435.00	4,329.90
Coal royalty	22,094.01		22,094.01
Petroleum and natural gas, fees, rentals, etc.	63,644.16	966.00	62,678.16
Petroleum and natural gas, royalties	40,285.04	1,317.04	38,968.00
Miscellaneous	2,429.98	2.50	2,427.48
	<u>\$ 616,815.31</u>	<u>\$ 196,753.07</u>	<u>\$ 420,062.24</u>
TRUST ACCOUNT:			
School Lands sales principal	350,127.33	1,022.34	349,104.99
	<u>\$ 966,942.64</u>	<u>\$ 197,775.41</u>	<u>\$ 769,167.23</u>

ALBERTA SCHOOL LANDS TRUST FUND
BALANCE SHEET—March 31, 1945

STATEMENT J.

ASSETS

Cash in bank and on hand	\$ 128,705.09	
Investments:		
Dominion of Canada bonds (book value)	\$11,074,984.49	
Accrued interest purchased	784.11	
		11,075,768.60
Accounts Receivable:		
Undue principal	\$ 223,797.89	
Arrears principal	464,129.29	
		687,927.18
		<u>\$11,892,400.87</u>

LIABILITIES

Alberta school lands trust fund	\$11,850,487.19	
Due Provincial Treasurer (earnings for year)	41,913.68	
		<u>\$11,892,400.87</u>

ALBERTA SCHOOL LANDS SALES
REVENUE ACCOUNT

From April 1, 1944, to March 31, 1945

STATEMENT K.

Arrears interest as at March 31, 1944	\$239,710.07	
Interest charges	45,970.34	
Interest revenue		\$114,147.48
Interest on cancelled sales written off		16,881.66
Court Order re Farmer's Creditor Arrangement Act adjusting interest		2,906.05
Arrears interest as at March 31, 1945		151,745.22
	<u>\$285,680.41</u>	<u>\$285,680.41</u>

STATEMENT OF COLLECTIONS ON TAX RECOVERY LANDS
From April 1, 1944 to March 31, 1945

STATEMENT L.

Grazing permits	\$ 2,128.65
Grazing rentals	4,511.43
Hay permits	46.50
Agricultural leases purchase of improvements	10.00
Agricultural leases crop shares	98.74
Sales principal	Dr. 88.81
Sales interest	Dr. 1,152.35
Cultivation permits	47.00
Cultivation rentals	1,423.36
Cultivation crop shares	4,655.20
Wheat acreage reduction bonus	63.71
Right of entry for surface rentals	155.00
Miscellaneous leases	57.35
Miscellaneous use permits	31.80
Miscellaneous sale of improvements	430.00
Special timber permits	116.42
Timber permits	65.75
Sundry revenue	216.39
	<u>\$ 12,816.14</u>
Tax recovery office fees	380.00
	<u>\$ 13,196.14</u>

STATEMENT M.

STATEMENT OF RECEIPTS AND EXPENDITURE
For 15 year period 1930-1945

	Gross Receipts	Refunds	Net Receipts	Net Revenue on Income Account	Total Expenditures from Appropriations	Surplus on Income Account
	\$	\$	\$	\$	\$	\$
1930-31	713,921.44	4,036.85	709,884.59	572,965.86	224,197.32	348,768.54
1931-32	1,135,415.64	6,407.90	1,129,007.74	1,032,307.37	690,448.31	341,859.06
1932-33	968,929.06	14,659.34	954,269.72	861,477.66	571,861.51	289,616.15
1933-34	1,068,650.48	16,772.56	1,051,877.92	937,095.80	462,407.61	474,688.19
1934-35	1,337,394.04	26,445.07	1,310,948.97	1,169,496.15	522,967.18	646,528.97
1935-36	1,310,890.21	47,031.55	1,263,858.66	1,152,475.78	504,544.37	647,931.21
1936-37	1,807,855.35	42,707.76	1,765,147.59	1,646,496.09	649,776.50	996,719.59
1937-38	1,789,276.20	68,941.29	1,720,334.91	1,606,156.50	521,564.72	1,084,591.78
1938-39	2,125,754.87	47,637.63	2,078,097.24	1,864,712.75	709,624.60	1,155,088.15
1939-40	2,629,622.16	72,133.44	2,557,488.72	1,944,098.82	708,605.34	1,235,493.48
1940-41	2,941,633.35	87,813.81	2,853,819.54	2,031,494.38	670,278.85	1,361,215.53
1941-42	3,967,861.44	499,420.02	3,468,441.42	2,593,485.14	847,555.32	1,745,929.82
1942-43	3,970,989.65	264,632.43	3,656,357.22	2,753,159.00	806,948.41	1,946,210.59
1943-44	4,504,913.73	416,578.27	4,088,335.46	2,821,784.73	861,907.08	1,959,877.65
1944-45	5,329,173.91	815,106.35	4,514,067.56	3,484,630.31	1,041,839.92	2,442,790.39
	\$35,552,381.53	\$2,430,364.27	\$33,121,917.26	\$26,471,836.54	\$9,794,527.44	\$16,677,309.10

STATEMENT N.

STATEMENT OF RECEIPTS BY BRANCHES
For 15 Year Period 1930-1945

	Fisheries	Game	Land and Grazing	Timber	Mining	School Lands	Mineral	Miscellaneous	Land Sales	Transferred to Other Departments	School Lands Trust Fund	Special Areas and Special Districts	Unapplied Receipts	Trust Accounts	Total Receipts
1930-31	\$ 4,827.54		\$ 74,996.87	\$ 121,085.59	\$ 372,055.86	\$ 271,760.18		\$ 597.47	\$ 6,705.39		\$ 113,749.01		\$ 15,009.29	\$ 1,455.04	\$ 709,884.59
1931-32	20,203.47		114,664.30	174,400.21	450,681.94	215,327.81		413.00	8,438.60		43,947.85		36,319.67	7,994.05	1,129,007.74
1932-33	15,827.10		114,389.01	123,707.36	391,813.38	168,571.71		3,202.04	7,522.85		40,065.81		26,737.56	18,465.84	954,269.72
1933-34	15,989.61		117,789.55	153,818.78	477,724.11	327,787.36		3,799.85	9,738.25		56,136.23		40,924.25	9,783.39	1,051,877.92
1934-35	19,949.89		115,599.20	225,063.17	477,296.68	327,787.36		7,111.97	9,765.20		80,132.43		40,316.83	11,238.36	1,310,948.97
1935-36	21,418.16		80,910.52	303,964.31	547,483.63	191,587.19		10,530.96	9,643.65		62,555.30		39,133.13	30.80	1,263,838.66
1936-37	24,317.93	\$117,989.34	111,610.39	331,036.53	757,247.46	293,763.48		11,726.50	10,867.23		55,799.89		51,803.38	181.00	1,765,147.59
1937-38			181,412.38	360,380.18	818,609.83	234,027.61		16,163.91	9,525.14		48,442.09		56,211.18		1,720,334.91
1938-39			159,415.63	298,434.00	1,032,502.10	358,197.11		14,177.87	8,593.93		86,322.26	68,299.49	50,168.81		2,078,097.24
1939-40			148,286.74	359,786.16	1,050,221.46	371,677.81		10,663.08	8,702.54	\$ 19,888.05	83,664.73	418,068.06	83,066.52		2,557,488.72
1940-41			125,544.35	612,175.84	945,333.30	337,777.81		15,066.17	9,511.39	851.49	76,589.34	633,745.14	101,627.80		2,853,819.54
1941-42	22,298.59	161,122.17	145,981.43	732,179.40	1,073,084.50	368,056.87	\$ 75,120.93	16,331.46	10,416.91	7.36	127,874.26	594,010.46	143,222.37		3,468,441.42
1942-43	21,975.49	157,280.99	161,376.91	774,172.70	1,215,777.93	311,612.10	94,364.68	16,267.66	11,100.94	200.00	145,341.71	543,062.32	203,759.99		3,656,357.22
1943-44	29,194.09	177,229.45	151,059.84	843,106.86	1,112,506.30	395,325.32	102,075.15	25,225.25	15,810.92	103.10	292,923.42	674,346.65	283,386.70		4,088,335.46
1944-45	33,264.10	185,638.47	220,599.44	843,680.79	1,603,316.88	420,062.24	92,783.29		22,125.48	78.32	349,104.99	445,110.94	213,077.37		4,514,067.56
	\$229,265.97	\$794,260.42	\$2,023,636.56	\$6,256,991.88	\$12,385,655.36	\$4,265,483.38	\$364,344.05	\$151,277.19	\$156,668.42	\$ 21,128.32	\$1,662,649.32	\$3,376,643.06	\$1,384,764.85	\$49,148.48	\$33,121,917.26

Special Areas Administration

REPORT OF THE CHAIRMAN, SPECIAL AREAS BOARD, M. BALDWIN

The year under review was only fair so far as crop returns were concerned, some districts receiving an average return, while others suffered from the effects of drouth to a considerable extent.

The number of stock in the Special Areas has increased greatly during the past few years, and it would now appear that the district has reached the limits of its carrying capacity unless some means of irrigation and stock watering is developed, which will stabilize the supply of fodder to carry the stock over the winter and assure sufficient water for the summer months. The need of water development for the area cannot be over-emphasized.

Damage by grasshoppers, sawfly and wireworms was limited to relatively small areas. A carload of grasshopper bait was used in the Bindloss district and some in the Lomond and Retlaw areas. Sawflies did considerable damage at Bindloss and at Majorville, also cut the edges of some fields farther north.

Control of live stock pests is receiving some attention throughout the area, and it is estimated that at least 35,000 head of cattle were treated for warblefly in Special Areas this year. Some form of compulsory control of this pest is being recommended by local stock-men.

Mr. J. R. McFall, Supervisor of A.I.A.'s, and Mr. K. Walker, District Agriculturist, held a series of meetings throughout the area, giving addresses and information on various agricultural matters. These meetings were well attended and of great benefit to resident farmers. Beef Calf Clubs operated at Iddesleigh, Veteran and Consort, with Grain Clubs at the latter two points.

Less than normal snowfall last winter permitted grazing in some parts of the area for the greater number of the winter months, but feed reserves are now low and the situation may become serious for live stock men who have doubled their stock holdings in the past few years.

In order to encourage feed growing, 8,715 pounds of Crested Wheat Grass were distributed to 53 farmers, and 3,500 pounds of Brome Grass to 17 farmers of the area. We have now purchased a quantity of slough grass seed for demonstration purposes. A 72-ton stock of Crested Wheat Grass hay was put up on our plot, five miles south-east of Youngstown.

Grain feed reserves are as important as hay. This matter was discussed at the meeting of the Advisory Committee held in December, 1943. Very few elevators along the Goose Lake line had any feed grain for sale this spring. Some means of encouraging farmers to hold grain on the farm would go a long way toward solving the feed problem, and help to place our live stock industry on a more stable basis.

Six Head Tax Pastures operated during the year, which cover an area of 249,470 acres of pasture land. A total of 5,769 cattle and 1,219 horses were taken care of in these pastures. All residents were moved from within the boundaries of the Sounding Creek pasture, leaving 880 acres of abandoned tilled land which was regressed with Crested Wheat.

Carrying capacity of range land within the area varies to some extent, and is limited by lack of sufficient water supply.

Mr. J. Campbell, range appraiser, did some work in the area during the year.

The Cessford Irrigation Project went into production on a limited scale this year, six farmers having broken an acreage and sown this to oats for feed. These crops were hailed twice during the growing season; however, considerable feed was harvested.

The Lethbridge Experimental Station sowed about thirty-five acres of alfalfa, securing a very satisfactory catch. Water in the dam from which this project receives its supply is very low on account of the light run-off, and unless there is an average run-off next spring, little water will be available for next year's crop.

The Special Areas have broken up 100 acres, which we will expect to sow to oats in 1945, with the object of creating a storage feed supply.

During the year the following permits were issued: 1,069 grazing permits on Public Lands, representing 573,274 acres; 441 grazing permits on School Lands, representing 200,421 acres; 602 cultivation permits representing 116,407 cultivated acres and 51,481 acres uncultivated; 152 hay permits where 738 tons of hay were cut; 31 feed permits were issued; 422 applications for long term grazing leases were recommended for issue; 437 long term 6 and 20-year cultivation applications were also recommended.

The above applications for long term leases represent quite a gain over previous years, as special effort is being made to have this type of lease established as soon as possible.

The year under review was very successful in regard to road construction, taking into consideration our limited amount of machinery for road building purposes. The area was fortunate in being able to purchase some additional equipment. During the year the following machines were purchased: two heavy road patrols, two 40-horsepower cletrac tractors with bulldozers, one second-hand 60-horsepower crawler type Union tractor, one L.A. Case tractor, and thirteen soil removers, the latter used mostly by the farmers for water development. This machinery was received somewhat late in the season, but proved to be quite an addition to our limited supply.

The following road construction was done: 363 miles of heavy blade grade and 72 miles of elevated road was completed, the usual maintenance of existing roads was kept up. A small amount of gravelling was done near the village of Craigmyle and the town of Hanna, also approximately \$4,500.00 was spent by the area in joint agreement with Public Works in the Bow West area, Taber to Vauxhall road and in Sounding Creek-Neutral Hills area No. 9 Highway near Lanfine.

In addition to the above road work, some \$25,000.00 worth of work was performed by local labor throughout the area, most of which was applied on taxes. This type of work consisted of light grading, maintaining, filling low spots on secondary roads, cutting weeds and installing culverts.

Our bridge crew worked steadily during the year when quite a number of bridges and culverts were installed and a number of others repaired.

A fencing crew was also maintained during most of the season when the Bull Pound Head Tax Pasture was refenced, as was also the Richdale Hay Meadow and a part of the Buffalo-Atlee Pasture. Fences at road diversions were reconstructed where necessary.

Several dugouts were completed for farmers in the district, and our D-4 outfit spent considerable time on dams and dugouts in Head Tax Pastures to maintain the supply of water.

Ducks Unlimited did some work in the area during the year, the main project being a dam to raise the water level in Hanalta Lake, a short distance north-west of Hanna.

There is a great need throughout the area for highway construction, and every hope is felt that equipment will soon be available to carry out a post-war construction of necessary roads.

GOVERNMENT OF THE PROVINCE OF ALBERTA
DEPARTMENT OF LANDS AND MINES
SPECIAL AREAS AND SPECIAL DISTRICTS

CASH STATEMENT FOR THE FISCAL YEAR 1944-45

(Ending March 31, 1945)

CASH ON HAND MARCH 31, 1944, AND REVENUE FOR YEAR 1944-45:

Cash in Bank March 31, 1944—Special Districts Trust Account	\$372,234.09	
Cash in Bank March 31, 1944—Special Areas Trust Account	491,712.00	
		\$863,946.09
Bank Interest Special Districts Trust Account	\$ 2,179.30	
Bank Interest Special Areas Trust Account	3,603.43	
		5,782.73
General Tax		285,445.03
Social Service Tax		19,409.23
1945 Special Areas Collections		119,221.48
Miscellaneous		7,214.54
Appropriation No. 1181 (Hospitalization and Medical Services)		25,000.00
*Department of Education Special Grant, Medicine Hat No. 4	\$ 782.00	
Taber No. 6	3,448.00	
		4,230.00
Principal collected on Agricultural Advances		10,209.44
Interest collected on Agricultural Advances		216.81
Road Maintenance applied on Taxes		15,692.71
Total		\$1,356,368.06

*In addition the usual grants were paid direct to the other School Divisions in the Special Areas by the Department of Education.

PAYMENTS FOR YEAR 1944-45.

Principal on Agricultural Advances	\$ 10,209.44
Interest on Agricultural Advances	216.81
Social Service Tax	6,915.28
School Requisitions	144,839.68
Hospital Requisitions	20,188.93
Medical Relief	\$ 19,400.20
Doctors' Contracts	5,599.80
	25,000.00
Blind Pensions	131.37
Direct Relief	66.67
Mothers' Allowances	3,987.26
Old Age Pensions	7,122.12
Provincial Mental Hospital	1,034.52
Provincial Training School	540.00
Public Works:	
Road Diversions	\$ 204.49
Power Machinery (Gas, Oil and Repairs)	20,965.22
Power Machinery Operator's Wages	26,191.22
Youngstown Shop	8,082.20
Road Maintenance Cash	37,906.26
Road Maintenance applied on Taxes	15,692.71
Machinery Repairs	1,455.65
Sidewalks	1,414.31
	111,912.06
Purchase of Equipment	39,024.73
Land Titles Office Fees	1,026.65
Maintenance of offices	2,853.46
Pests and Weeds	1,765.85
Community Pastures	12,264.03
Construction of Dams	706.97
Grass Seed	831.55
Stationery and Office Supplies	2,058.44
Travelling Expenses	6,767.24
Telephones and Telegrams	2,104.00
Postage	1,205.00
Miscellaneous	4,338.05
Total Payments	\$407,110.11
Cash Balance	\$949,257.95

CASH BALANCE

Special Districts Trust Account	\$385,682.28
Special Areas Trust Account	563,575.67
	\$949,257.95

An amount of \$50,464.57 for salaries was paid out of the General Revenue Fund of the Province during the fiscal year. The Province will be reimbursed by a payment of \$17,300.57 from the Special Districts Trust Account. The difference of \$33,164.00 being offset against unpaid Road-Work Grants owing by the Department of Public Works for the fiscal year.

SPECIAL AREAS ADMINISTRATION

155

	Special District No. 2 acres	Special District No. 3 acres	Special District No. 4 acres	Total acres
Acreage	2,432,069	2,884,894	771,143	6,088,106
Assessable Area	792,039	1,148,391	418,093	2,358,523
Assessed Value:				
Land	\$3,088,530.41	\$4,877,890.59	\$ 1,973,240.00	\$ 9,939,661.00
Improvements	449,011.00	455,220.00	129,650.00	1,033,881.00
Total Assessment	\$3,537,541.41	\$5,333,110.59	\$ 2,102,890.00	\$10,973,542.00
Annual Levy:				
General	\$ 81,283.66	\$ 122,096.61	\$ 44,881.57	\$ 248,261.84
Social Service	9,019.14	14,139.32	5,919.70	29,078.16
Total Levy	\$ 90,302.80	\$ 136,235.93	\$ 50,801.27	\$ 277,340.00
Collections on 1943 Levy	\$ 73,688.32	\$ 93,394.59	\$ 41,743.45	\$ 208,826.36
Collections on 1944 Levy	67,688.32	82,377.49	40,890.45	190,956.26
Arrears paid in 1943 and 1944	145,528.62	226,813.41	54,793.05	427,135.08
Present Arrears:				
General	192,961.54	422,520.21	57,566.21	673,047.96
Social Service	2,905.95	6,287.10	1,057.29	10,250.34
Rep. Schools	1,764.38	14,190.06	300.85	16,255.29
Hail	46,393.02	59,470.99	2,256.96	108,120.97
Total Arrears	\$ 244,024.89	\$ 502,468.36	\$ 61,181.31	\$ 807,674.56
Current Charges by way of rental fees and dues:				
Grazing Lease Rentals	\$ 46,344.64	\$ 16,767.80	\$ 5,509.51	\$ 68,621.95
Grazing Permits	3,164.65	13,803.73	1,466.46	18,434.84
Grazing Lease Fees	125.00	130.00	35.00	290.00
Hay Permits	106.25	290.38		396.63
Head Tax Permits	7,374.37	1,731.91	2,525.90	11,632.18
Cult. Permits and Lease Rentals	1,096.77	1,832.04	583.10	3,531.91
Crop Shares	6,235.06	11,359.84	393.93	17,988.83
Cultivation Lease Fees	67.00	195.00	70.00	332.00
Sundry	605.50	129.10	75.79	810.39
Misc. Sale of Improvements	2,385.89	4,047.30	1,049.50	7,482.69
Total Charges	\$ 67,505.13	\$ 50,307.10	\$ 11,709.19	\$ 129,521.42

HD 319 A4 A329 11TH-15TH
 1940-1945
 ALBERTA DEPT OF LANDS AND
 MINES
 SERIAL M1 39794057 SC1



Date Due

NOV 22	RETURN		
NOV 21	80		
APR 07	RETURN		
APR 10	RETURN		
OCT 02	1991		
JAN 14	RETURN		
FEB 14	1992		
OCT 09	1992		
JUN 10	RETURN		
OCT 12	94		
OCT 13	RETURN		

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